

The National Locksmith

February 1999
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CODES!
IVECO MD30001-MD3890
page 146

Key Machine Mania!

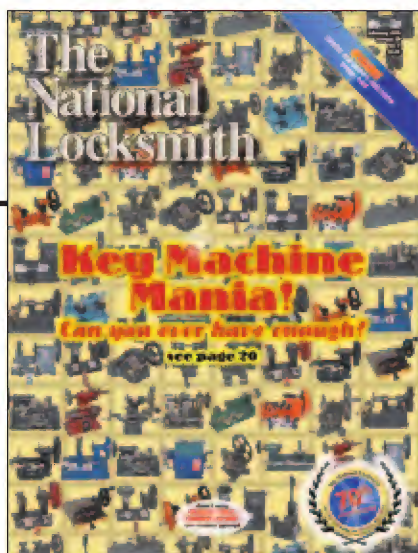
Can you ever have enough?

see page 20

Don't miss
**DIRECT MAIL
BONUS CARDS**
see center spread



On The Cover...



The cornerstone of every locksmith business, the key duplicator has steadily evolved from its hand cranking origins.

Publisher Marc Goldberg

Editor Greg Mango

Art Director Jim Darow

Production Director Edgar Shindelar

Technical Editor Jake Jakubowski

Senior Writers

Michael Hyde, Dale Libby, Dave McOmie, Sara Probasco

Contributing Writers Tony Blass, Joe & Dee Bucha, Carl Cloud, Ron & Chris Curry, Sal Dulcamaro, CML, Steve Gebbia, CML, Giles Kalvelage, Jim Langston, Tom Lynch, Tom Mazzone, Don Shiles, Robert Sieveking

Director of Sales & Marketing
Jeffrey Adair

Advertising Account Manager
Debbie Schertzing

Circulation Manager Tom Dean

Accounting Manager Sheila Campo

Production Assistants Kim Fryer
Dave Krofel

Administrative Assistant Pat Malerk

Shipping Manager Sean Selby

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call (630) 837-2044, fax: (630) 837-1210,
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COMMENTARY



InstaCode... New for 1999!

This month I want to tell you about the changes we've made to our InstaCode software for 1999. The problem is that I hardly know where to begin, so I will just plow ahead...

The program is now available on either CD or 3.5" diskette. In either case, you install it on your hard drive, and it takes up a modest 20 megabytes or so of drive space. Other exciting changes include the following.

InstaCode now prints code cards for HPC's popular 1200PCH™ Punch Machine. We added that feature due to the number of locksmiths requesting it. Of course, the software still prints 1200CM™ code cards, so now you can take your pick.

More Framon specs than ever before are now included so that you have full data on how to setup your Framon when code cutting. If you use an HPC Codemax™, you'll be pleased to find all the data needed in InstaCode. Plus, complete data has been entered for both the Curtis Clipper and A-1 Pak-A-Punch. If you use either of those machines, you will find all the details you need to easily punch a key.

A tremendous number of new code series have been added to the already code-rich InstaCode software. Included among these are automotive High Security series for Lexus and BMW.

Perhaps the most exciting news is our new EZ Rent Plan. Yes, you can still purchase the program outright, or pay in 12 monthly payments on the EZ Pay Plan. Both of those plans get you the Unlimited User Edition which will run on all the computers you own. But here are the details of the new EZ Rent Plan which gives you the Single User Edition.

The cost is only \$18.95 per month, billed to your credit card. Annual updates are provided at no additional cost. The EZ Rent Plan comes with a dongle which is a small device you plug

into the back of any computer. You may install the program on all the computers you own. The software will operate only on computers using the dongle.

For example, you can install InstaCode on your shop computer and your truck laptop. Simply take the dongle with you when you go on a call. You may request additional dongles when you order, or at any time in the future, for an extra monthly fee of only \$9.95. Annual updates are included free in this plan. Unlike other lease plans, you do not pay any annual membership fees or pre-payments of any kind. You may cancel your rental agreement at any time after the twelfth month by simply returning the dongle.

No matter which version of InstaCode you purchase, you'll always be able to easily re-install the program in the event of a hard drive crash, or when you purchase a new computer.

For more information on InstaCode, please see the ad on pages 66 and 67.

If you're already an InstaCode owner, we'll be mailing you update information shortly so you can upgrade your software to receive all the features that have been added for 1999.



Join our free E-mail list!

Receive locksmith info by E-Mail.
Write us at: NATLOCK@aol.com

Marc Goldberg
Publisher

February 1999 • 5

Mango's Message

Every now and then an idea comes along that can't help but capture attention. Such was the case when I first heard about 1-800-UNLOCKS®. I was rather intrigued by the name and the following promotional flyer I received:

1-800-UNLOCKS®
Nationwide Automated Dispatch Network

Move over flowers; move over collect calls...**1-800-UNLOCKS®** is here. With more than 21 million purported lockouts a year, a new collaboration between Unlocks, Inc. (ULI) and AT&T has been created to streamline the way the public requests its lockout service calls.

Unlocks, Inc., a Tampa, Florida based company, is building a first and only national network of pre-approved, quality lockout service providers. This exciting new company has spent the last 18 months analyzing the industries need for some form of automated dispatch service.

A call to **1-800-UNLOCKS®** will connect the public, for free, to a network of ULI approved service providers, offering peace of mind when in need of quality and cost-effective lockout services.

A customer simply picks up the phone and dials **1-800-UNLOCKS®** and help is immediately on the way. The system detects exactly where the call is coming from and instantly

and automatically routes that call to the ULI service provider in the immediate vicinity.

By providing this free emergency access to the public, **1-800-UNLOCKS®** feels that fewer people will be taken advantage of during a crisis.

ULI is spending millions of dollars to promote the **1-800-UNLOCKS®** service to the public through a variety of media, including radio, television, print and public relations.

Providers benefit directly from campaigns through increased call volume resulting in increased revenues. ULI's goal is to show, within 12 months, a return on enrollment investments made by its providers of no less than 500 percent.

ULI anticipates enrolling approximately 5,000 quality service providers in the first 18 months of its national rollout.

The **1-800-UNLOCKS®** national awareness campaign will launch officially on November 1, 1997.

Providers wishing to secure their territories may submit an application for approval by August 15, 1997, and may still receive the pre-launch territory license rate. After August 15, the license fee will go up to the normal amount per exclusive protected territory. In addition to paying a one-time licensing fee that covers automated digital dispatching up to 100 lockout service calls per month. Additional lockout service dispatch calls above the 100 per month are one dollar per call and are billed monthly.

Licensed territories are going fast, and once they're gone, they're gone. Apply immediately to become a quality **1-800-UNLOCKS®** service provider.

Reserve your territory now before your competitor does!

For a FREE application call:
1-888-865-6257.

Unlocks, Inc., P.O. Box 4853, Palm Harbor, FL 34685.
Tel: 813.786.9883,
Fax: 813.787.7960,
E-mail: Unlocks@aol.com.

1-800-UNLOCKS®

Prior to interviewing Unlocks, Inc., I did a little snooping to see what I could learn about this company, the principal parties involved and the claims it was making.

My first concern was locksmiths would need to invest a fair amount — initially around a \$5,000 license fee plus a monthly phone exchange fee — in a service and company that was unproven. It had no track record upon which to make any tangible claims. This is not necessarily a bad thing, after all, for those who play the stock market, new, unproven stocks are routinely offered to the public. Sometimes the investment pays off, and sometimes it doesn't. It's a gamble and that's what it's all about. However, any new offering should be investigated closely and thoroughly before placing bets.

After closely examining the promotional brochure and benefit package claims, a

**Continued on
page 8.**

Wow! How can that not capture your attention? However, can this all be for real? If so, what tangible proof can be produced?

Well, I had the unique opportunity to find out, because it just so happened that 1-800-UNLOCKS® was going to be at an upcoming ALOA show that was in New Orleans, and I was going to do my best to chat with them. In fact their booth was directly across *The National Locksmith's* booth.

Greg Mango

**Greg Mango
Editor**



Mango's Message

Continued from page 6

number of questions arose. For starters, this was a Tampa, Florida based company. Nothing wrong with that, however, I can't begin to tell you how many scam operations originate, or are based, in the state of Florida. That was the first red flag.

I checked with the Florida based Better Business Bureau (BBB) to see if there were any claims against the company or its owners. There wasn't. However, in their contract I noticed that Unlocks, Inc is listed as a Kentucky corporation! Red flag number two.

I contacted the Kentucky Office of the Secretary of State, for the status of Unlocks, Inc. and found that in fact it was not currently in good standing with the Commonwealth of Kentucky. It once was, but at the time of my inquiry, Unlocks, Inc had lost its corporation status.

Yes, I had hit upon what every investigative reporter lives for...pay dirt. Tidbit number one for the files.

Unlocks, Inc. (ex-Inc.) was claiming that it would spend millions of dollars nationally promoting the 1-800-UNLOCKS® name. This was red flag number three. I seriously doubted that this company had millions of dollars to spend even if it wanted too. It sounded good, but where was the proof. What proof could they produce indicating there was millions of dollars allocated for national promotional advertising? How about copies of current contracts with a radio station(s) TV station(s) newspaper(s) or magazine(s)? We'll find out!

At the ALOA show I did arrange a meeting with Unlocks, X-Inc. When we met I inquired as to their corporate status and they did in fact declare that the corporation was registered in Kentucky. When I told them that I called the Kentucky Secretary of States office and was informed that they were currently not in good standing, they were shocked and assured me that it would be corrected. Shortly thereafter, corporate status for Unlocks, Inc was corrected and a faxed copy from the Commonwealth of Kentucky did indeed confirm Unlocks claims.

When asked if they could produce any tangible proof of a plan to spend millions on an advertising campaign, there was none to be had, other than a claim that a radio jingle was produced and I would be sent a copy as proof.

It must have got lost in the mail!

I then asked if there was an escrow account set-aside with the funds collected? Again, there was none, however, Unlocks, Inc. did give me their bank institution name. I called to see if I could obtain any financial statements on this company, however, all assets were in private accounts and balance information was denied.

My meeting with Unlocks, Inc. took place in July of 1997 and their official launch date was November 1, 1997. Yet, in



their Provider Benefits package and promotional flyer, they state that almost 1,000 locksmiths are promoting 1-800-UNLOCKS® and project there will be approximately 5,000 service providers in the first 18 months!

That statement proved to be just slightly exaggerated and inflated.

My interview with Unlocks, Inc. occurred over 18 months ago. Since that time, the only substantial change that has occurred is the license and phone exchange fees have been drastically reduced. 1-800-UNLOCKS® is up and running and the system does indeed work. However, to date, I am not aware of any local or national advertising program being implemented, they don't have 5,000 service providers enrolled and those who are involved have not seen a 500 percent return in the first 12 months. At least not the ones I spoke with.

1-800-UNLOCKS is an idea that I believe has tremendous potential. The shortcomings of the company was not having a solid financial foundation upon which to build the business. However, if the current service at least pays for itself it may be worth the investment. My only concern would be the financial stability of Unlocks, Inc. If you invest in a toll free number that is owned and registered by someone else, advertise it on your service vehicles, place the number in your Yellow Page advertising, promotional flyers or anywhere else, and the company goes belly-up, guess what? Your phone may stop ringing.

The real intent of this editorial is not so much to point out the shortcomings of Unlocks, Inc.; they were used as an example. Besides, what information I am able to present to you within two pages is merely a brush stroke of the entire tapestry. The intent is more to offer suggestions on how to read between the lines before making an investment. I encourage you to ask the tough questions, do a little research, make a few phone calls and don't make an impulsive decision. If there is a piece of the puzzle that doesn't quite fit, you may be better served investing your money elsewhere. **TL**

Letters

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

How Wrong I Was

I was very moved by the tribute by Marc to Bill Reed. I was one who for many years felt that *The National Locksmith* and its staff were second-rate. How wrong I was! Your editorial content and the caliber of your professionalism has been excellent.

Bill had the knack of finding quality and endorsed it. He was one of a kind to the locksmith profession.

Marc, continue to carry on a great tradition.
*Myron Bird, CML
Pennsylvania*

Locksmiths & Police

I have bided my time on this one, now I feel it is time to respond. I figure I am going to get some bashing over this, but here goes.

I am a small town Law Enforcement Officer, as well as owning my own business as a professional locksmith. I was actually a locksmith first.

The chief of police of my little department has issued a verbal order

that states he discourages his officers from opening vehicles, except for child-locked-in-car situations. He has gone on to say that he realizes the public servant/police image is low. Look at the Rodney King beating, corruption/ethics issues, etc. It is nice, as a police officer, to try to polish and improve the image the public has of us as public servants. Goodness knows how much we all complain how the government takes from us and gives nothing or very little back (taxation without representation).

While on duty as a patrol officer, I do not actively seek out persons who have locked themselves out of their possessions. I also have not turned down any legitimate requests to open them, either. I use a signature/liability release form that has been scrutinized and approved by the town's lawyer, and it closely mirrors my own signature/liability release form.

Yes, while I am opening a dwelling or automobile, I do think about how that \$30.00 could have been used to put gasoline in my service van, feed my kids, buy stamps, etc. And yes, it hurts. At the same time, I usually put a pitch in for the professional locksmith as a trade. It is amazing how many times I hear "I didn't know they did all of that!"

We locksmiths spend a lot of time arguing and worrying about our professional image. The police department has an image to worry about also. Police department images have had a lot more damage done to it than the locksmiths have. No, the police image is not going to improve overnight just by opening cars. I feel that the ability to help a citizen, whatever the problem is, is why I got



into law enforcement in the first place. Just the same as the fire fighters and paramedics who serve the public, not themselves! Of the officers on my department, I do not know one who intentionally tries to take cash out of my pocket or other locksmith's pockets. The other local agencies give my business a lot of referrals when they do not have any officers who are willing to open a vehicle or home.

As has been said before, I encourage all locksmiths to try to befriend their local law enforcement agencies instead of alienating them. Of the eight or so locksmiths who operate in my area, I know for certain, the emergency dispatchers know which locksmiths are helpful and which to avoid

*Lt. Michael Hendricks, CPL
Indiana*

Stop Police Opening Cars

After having retired from a career in law enforcement and also having been a locksmith for a long time, I found the best and easiest method of getting a city to not allow their police

Continued on page 12

The National Locksmith
1533 Burgundy Parkway
Streamwood, IL 60107
Attn: Editor

or fire departments to open vehicles, except in emergencies (person down in a vehicle or child locked in a vehicle), is to get a delegation of citizens to attend a city council meeting. In front of the public, denounce the non-emergency openings as a GIFT OF PUBLIC FUNDS. This will get the immediate attention of the public and the City Council. This had good results in the city where I was a police officer (Lieutenant). I did not want my officers opening cars in non-emergency situations because this is not a police function and a waste of the officer's time. They usually do many other things too. In a true emergency situation, we opened the car by breaking a side window with an automatic center punch.

Wesley Vance
Oregon

Look Before You Leap

Just a note to wish you and *The National Locksmith* a Happy New Year. I also want to express my condolences on the passing of Bill Reed. I have always enjoyed Bill and Steve Young's seminars. I, like you, will miss him.

I have a story on Houdini, the locksmith, that I thought was interesting.

Houdini had a standing challenge that he could get out of any locked jail in 60 minutes, providing they would let him enter wearing his regular street clothes and not watch him work.

A little town in the British Isles decided to challenge (and perhaps embarrass) the great Houdini. This town had just completed an escape-proof jail, so the townsfolk invited Houdini to come and see if he could escape.

Houdini accepted the challenge. He was allowed to enter the jail wearing his street clothes and with the clang of steel, everybody turned their backs and left him alone to work. Houdini had hidden a long flexible steel rod in his belt, which is what he used to try to trip the lock. He worked for 30 minutes, then 45 minutes, and then an hour passed. After two hours, he was exhausted. Defeated, Houdini leaned against the door and to his amazement, it fell open. They had never locked the door after he entered the jail cell! It was their trick on the great escape artist!

Back in my early day's of locksmithing, I can remember picking a front lock only to find the back door open and being called to open a car with the rear door unlocked. It took me a while to learn to walk around, look and discuss with the owner before I take out my tools.

Good luck in 1999 and keep up the good work. I look forward each month to receiving *The National Locksmith*.
Cy Rollins
Delaware

Import Opening Tools

Just thought I would drop a line and ask if anyone has seen the new imported (Taiwan) auto opening tools that are being sold in the import tool places. I purchased my first set in Tennessee a few months ago. They are only about \$15 a set. I have used the set on one car opening job and found that it was a bit flimsy, but it still worked satisfactorily.

I e-mailed our local paper and Dateline to thank everyone for our free market society. Dateline did not seem to be interested because I never heard back from them. News shows, such as EXTRA seemed more interested in crucifying our trade.

It is too bad I quit the fight.

Charles Osborne, Jr.
Virginia

SouthCo Locks

My customers in the RV business are asking for SouthCo keys for the storage and access compartments on several makes.

Can you offer a possible source? I did not find any clues in the Buyers Guide.
David Good
California

Editors Note: SouthCo Inc. can be reached at: (610) 358-6306. Greg Mango

Self Promotion

How do I, with a limited budget, promote the fact that, as a professional security provider, I am the best source for security hardware and services? I have heard the arguments regarding our national association's role and how they have failed time and again to use their (our) funds to promote us professionals. The complaints are accurate as I have not ever seen any benefits from the national association in this area, although they have been promised for years.

What I have done is to try to:

1. Write letters to the editor of local papers when the subject of security is addressed.
2. Submit press releases when I have reached another level of professionalism by obtaining another security-related certification or adding a service to my list of services.
3. Enhance my proposals by taking a few more minutes in writing a concise cover letter that will hopefully impress the reader.
4. Always appear in uniform while on-duty, while keeping the service van in the best appearance possible each day (not an easy task).

The more I invest in my image, the better I will be perceived and recommended. Of course, our prices should reflect our professionalism. We cannot defend the high prices we charge if we do not carry through with the best professional service, superior appearance and first-rate courtesies to go with it.

Now, if only we can get the powers that be to cooperate.

Les Moyer
Pennsylvania

Tales of the Strange but True

A local service shop owner called and said an employee had lost the key to a '91 Dodge Shadow (Y154 key). He then said he had a Toyota key that with a little jiggling, would open the doors and start the car. I told him I would meet him at the shop and see what I could do.

I took the Toyota key and copied it on a Y154 blank. It worked like it was an original. I guess with locks you never know what is going to happen when you try something different.

Roger Long
Illinois

Only in New York



Tom Lynch
New York

TNL

Security Café

**DROP IN FOR
TOOLS, TECHNOLOGY
& EQUIPMENT**

CamLock Systems Adds New Products



**CIRCLE NUMBER
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CamLock Systems has introduced three new items to its Locksmith product line exclusively distributed by Chicago Lock Company. The three new items are: The Series 10 Double Entry Cam Lock; Series LL Cam Lock Style Thumb Latch; and the Series 13 Miniature Tubular Cam Lock.

The Series 10 Double Entry Cam Lock offers added security with a "convenience key." The 8 disc tumbler mechanism provides thousands of key combinations. The Series LL Cam Lock-Style Thumb Latch can replace most cam locks where key operation is not required. Accidental cam rotation is prevented by a positive ball bearing detent in both locked and unlocked positions.

The series 13 Miniature Tubular Cam Lock is ideally suited for limited space applications. With a reliable four-pin tubular lock mechanism, is chrome plated and offers hundreds of key combinations.

Transponder Blanks From JET

The DA31-N-PHT Transponder Blanks for the Nissan Maxima and Infiniti automobiles are now available. Required is the ETD-1, it has the foremost technology to copy and duplicates the codes for Nissan and Infinitis. The ETD-1 will decode and duplicate

on Jet's or any manufacturer's including OEM key blanks. The ETD-1 is the only Transponder Decoder and Duplicator that will handle Nissan's products at this date, other than the dealers original equipment.



**CIRCLE NUMBER
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Major Manufacturing Baldwin Template Guide



**CIRCLE NUMBER
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A new template guide used to install Baldwin mortise locks is now available from Major Manufacturing. The new guide, P/N HIT-45BH1, will help make quick, clean and accurate installations by locating all holes used for trim, T-turn cylinders, through bolts, and etc. All function holes are located by hardened drill bushings and all four backsets used by Baldwin can be accommodated.

Abloy Adds Colorful Padlocks

Even MOMA (The Museum of Modern Art) in New York wanted some samples of colorful AVA padlocks made by Abloy!

This is a great product for lockers in health clubs, kindergartens and schools. Easily recognizable

bright colored AVA padlock is packed in a display pack with two keys. With the available six colors you have a choice of fifteen different color combinations. Material: chrome plated steel shackle, diecast lock body with weatherproof, plastic coating.



**CIRCLE NUMBER
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Requires the HIT-45 modular clamp and ML1 positioning fixture.

DORMA 9000 Series Exit Devices

The 9000 Series heavy-duty fire and panic exit devices by DORMA Architectural Hardware provides exceptional durability for high-use, institutional applications. A heavy-duty chassis provides superior strength, while a smooth, reduced-projection design minimizes catch hazards, improving traffic flow. The non-handed rim device facilitates easy installation. With standard freewheeling and optional clutch-style trim, the devices are highly vandal resistant.

The series includes rim, mortise, concealed and surface vertical rod

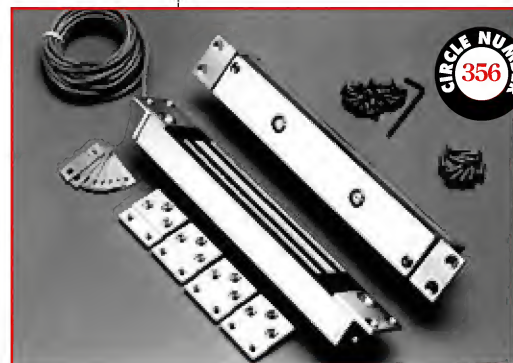


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options. All devices within the series are ANSI Grade 1, UL-listed and are available in panic and fire exit versions to meet applicable requirements.

Shear Aligning Magnalock Passes UL Testing

Securtron's U.S. patent-



**CIRCLE NUMBER
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pending Shear Aligning Magnalock®, known as SAM, has passed UL testing. The SAM can now be incorporated into Securitron UL listed systems for delayed exit applications and immediate egress doors. The SAM also passed UL testing as an auxiliary lock for use on fire rated doors.

These UL listings open a complete new application for shear locks. The SAM brings its unique product benefits of; fully concealed mounting, self aligning locking that requires no door position sensing, instant release even under door pre-load and position insensitive mounting on the top, side or bottom of the door.

The SAM gives all of the benefits of our direct pull Magnalocks, in a concealed shear format. Features include auto-sensing dual voltage and include ultra low power consumption of only four watts.

Steck BigEasy



Lockout Tool Kit

The BigEasy from Steck is the complete lockout tools kit for all cars and light trucks. It eliminates the danger of airbag activation and disconnected linkages because none of the tools enter the door cavity. The BigEasy is always visible as the technician actuates the interior buttons, slides or handles so no extensive training is required. The

SureGrip Knob Lifter is used on vertical lock buttons.

STI Lifetime



Warranty

As demonstration of confidence in the durability of its products, Safety Technology International, Inc. of Waterford, Michigan has announced that all STI Wire Guard units will carry a lifetime warranty against breakage in normal use. The announcement was made by Margie Gobler, STI President.

This includes all STI Wire Guards that are available to protect damage and vandalism towards smoke detectors, motion detectors, sensor units of beam type smoke detectors, exit signs, clocks, bells and similar devices.

VX-40 Outdoor PIR Detector

Outdoor PIRs offer easy installation and wide detection areas for outdoor security. VX-40 combines two PIRs to create a high reliability PIR that is suitable for almost



all outdoor applications. Multiple Detection Patterns and Double Conductive Shielding give VX-40 immunity to false alarms caused by small animals, cars, sunlight, RFI, and other outdoor false alarm factors. VX-40 has a Form C-relay, temperature compensation circuit, optional photocell feature, sequential processing circuit, and many other features to ensure quality outdoor performance.

Angio/Laz Color Camera and Video

The AngioLaz VBS-1m color camera and video system from RQ Associates



is compact, portable, provides the locksmith with bright and sharp images and a great depth of field inside a lock assembly. The color camera head fits into the palm of the locksmith's hand. Working off a single power cable to a standard 120-volt outlet, the color display module contains a 10-inch color monitor and a high intensity light source. Also available as a monochrome system, the monitor and camera/scope can easily be carried by the top-mounted handle or in an optional shipping case.

Kenstan Thru-Glass Plunger Lock

There have been so called interchangeable core plunger locks for glass doors before. The core had to be retained

by using a set screw to hold it in place which needed to be tightened from the back of the glass door. This is a time consuming and difficult job.

Extractions Made Easy With WEDGEKO

WEDGEKO's new #1400 Key Extractor Kit introduced earlier this year has a red handle wafer spreader and replaces the #1300 Kit with the blue handle pliers.

The new red handle #1400 pliers nose is 1/2-inch longer, thinner and made of stainless steel.

The kit includes a 5 - inch stainless steel forceps with a curved tip, for easier access to the lock.



The newest version of the #1400 Kit includes three of the new extra long "gold" spiral extractors. They have a 2-1/4-inch long spiral wire. They are made to go all the way to the back of the ignition locks on the 1998 and newer Toyotas, Geos, Hondas, Volkswagens, Nissans and many more for easy 5-minute broken key removal.

SECURITY CAFÉ



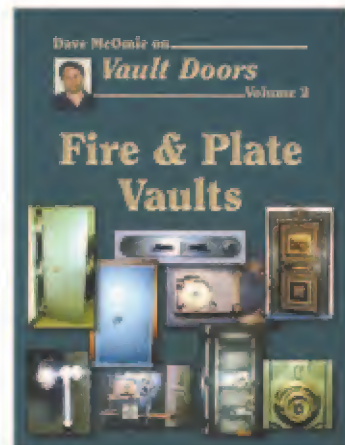
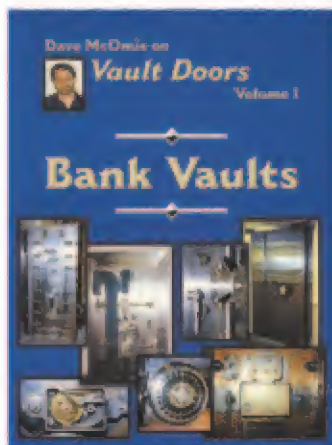
Kenstan has solved the problem by engineering of the new Alpha Glass Plunger. The control key

inserts the core; the operating key works the lock. No set-screw or other retainer is required. For the first time, the core can be interchanged in a matter of seconds.

The KIC 40-41 Series Thru-Glass Plunger Locks are perfect for aligning glass doors where interchangeable core locks are needed. They offer quality security and master keying capability. The customer can use the same keying plan as for all the other cabinet locks. The 40 series lock is captive, meaning that the key can not be removed while the lock is in the unlocked position.

Alpha cores can be supplied on any keyway and can be keyed to the existing keying plan. Kenstan can also design one, up to and including master and grandmaster keying plans. **TNL**

Dave McOmie on Vault Doors Vol. 1 & 2



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#VD - 1, VD - 2

Auto Lock Service

Features photographs, illustrations, and instructions to service and repair various makes of foreign and domestic cars.



Published by:

The
National
Locksmith

#ALS - 1

Auto Lock Service

Covers opening and service techniques.

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the INDISPENSIBLE KEY MACHINE

by Marc Goldberg

Have you ever heard the expression, "Boys and their toys"? Pretty much all guys love their toys, whether they be their fishing rods, guns, or stereos. In fact, I've even seen a bumper sticker that says, "He who dies with the most toys wins."

Well, yes, boys do love their toys; it probably dates back to our earliest memories of coveting a GI Joe or perhaps a water propelled rocket. But, in the case of locksmiths, our toys are not confined to CD players and boats. Nor is our gender confined to just men, because female locksmiths, too, love their toys.

In the case of the love relationship that locksmiths have with their toys, probably the most passionate love affair of all is between the locksmith and his key machines. Notice I said machines in the plural, not the singular. That's because I don't know of any locksmiths who considers a bench with only one key machine on it to be any fun at all.

Just as a collector of Beanie Babies only really feels happy with an overflow of the toys, the real locksmith is only satisfied when the bench is crowded with machinery of every different type. The only limitations to our greed for machinery might just be the available electrical supply and the space on the bench itself.

After all, there is so much to want! Manual duplicators stand cheek to jowl by the semi-automatics, to say nothing of the fully automatic machines good for those times when the shop busies up. Then there are the clippers, and punch machines, oh-so-useful when running all the power machines simultaneously blows the electrical grid for the entire county. And, did I even have a chance yet to mention the code machines? Lots of locksmiths collect a few of those, one for each truck, or for each corner of the shop. Ooops, and I didn't even get to think about the flat steel machines yet...

A locksmith who is rich in key machines is wealthy indeed. Oh, I'm not talking about money; that is far too superficial a topic. I mean that the 'smith who needs a power vac and a couple of hours just to sweep up the brass chips is the envy of all his friends. His or her spouse may have a car truly in need of an oil change, the air filter crusted with black sludge. But believe me, that same locksmith probably has a twenty foot counter filled with key machines which he may know better than his children. The key machine loving locksmith probably notices a missing tooth on a cutter sooner than he does on his five year old.

Now, not every locksmith has the time to install a central vacuum system to keep the machinery sparkling. Sometimes even the best of us are awash in brass chips, but the health and welfare of our "babies" is never far from mind.

I think I first became aware of the locksmith's love affair with key machines back in the early 80's. I was repping key machines, among other things, to distributors. I had one wholesale client who stocked almost as many parts as we did at the factory. If anything ever went wrong with one of his customer's machines, he was on the spot within hours, with a complete mobile key machine hospital. Oh, to be sure, he drove us nuts at the factory, but I assure you that his customers loved him.

Of all the people I know who adore key machines, the one who has taken it to the farthest extreme is Jerry Hoffman, founder of HPC, Inc. Jerry not only loves key machines, he also collects them. His custom built display shelves showcase over 150 machines, of all types and ages. Duplicates and undisplayed machines are crated, boxed, stored and overflowing near the display cases. We're talking about a lot of machines here.

"Key machines are the heart of the locksmithing business," said Hoffman. "Even though any individual sale may not produce huge dollars, it's still a major part of the business."

Jerry's oldest machine dates back to 1895. Although decades ago this hand cranked machine was fitted with a cutting wheel, the original cutter was simply an abrasive stone wheel. An ingenious system of gears causes one

rotation of the hand crank to transfer six rotations to the cutting wheel. This machine was originally used to cut flat steel and bit keys.

The Jerry Hoffman collection started with a single machine, back in the mid-sixties. "I started collecting when my father gave me his original cast iron drop head Yale key machine." Since that time, his passion for key machines has become so well known that he has sometimes found a donated key machine laying on the steps of HPC.

"I get a kick out of seeing new key machines come on the market," notes Hoffman, "and sometimes I find similar designs to the new ones on machines dating back to the early 1900's. As time goes on, key machines will become more computerized for those locksmiths who cut hundreds of keys at once, like for master key systems."

One thing is for certain, though, and that's the fact that as long as we have keys to cut, we'll all be collecting key machines in one way, shape or form. After all, you can always install more countertops.

(The key machines featured on this month's cover represent a small part of Jerry Hoffman's collection.)

So much has changed in the design of key machines over the years, and yet, so much has stayed the same. The key machine of today duplicates faster than its predecessors, cuts more accurately and precisely due to close tolerance manufacturing, and incorporates more safety features than ever before. However, the basic principal has remained the same. A key is still manually clamped in vise like grips and a cutter wheel (albeit a carbide cutter) still shapes the key as desired.

It's always interesting to look back at where it all began, yet most of us would not want to turn back the hands of time. There is something special about those old relics, yet modern day machinery does have its conveniences. The following is a look at the current line-up of available key machines who's roots are deeply seated in those early predecessors that forged the framework which is still incorporated today.



CURTIS MODEL 5100

The 5100 Key Duplicator and Code Cutting Machine from Curtis is designed to allow an operator to originate a key by code where necessary, or duplicate an existing key when available. The machine features four-way vise jaws designed to accommodate virtually any standard automotive key as well as many double-sided automotive keys without the need for adapters.

Powered by an Emerson 1/4hp, 1725 RPM, 115 volts/60 hertz, single phase motor, the machine has an M-2 high speed steel cutter wheel. The unit, which has a shipping weight of 38 pounds, is rated at 4.0 amps hp max with an insulation class of B and measures 14 inches wide, 15 inches deep and 9 inches tall.

The four-way jaws on the machine include stations suited to gripping double-sided automotive keys and is capable of

gripping them in the groove or milling for enhanced performance when necessary. The standard setting is for holding single sided automotive keys as well as most house and padlock keys and the wide position is for cutting most double sided keys by code and for duplicating most double sided "Ford style" keys. The "X" position is useful for duplication of worn double-sided keys, especially those with narrow grooves or having deep cuts, allowing the keys to be gripped by their center grooves for increased gripping performance. The W/A position is similar to the "X" position, but is not recommended for automotive keys.

An application guidebook and cross-reference guide to allow cutting keys by code is included with the machine. The book covers key blank applications for all domestic and import makes and models from 1935 through 1998 which can be cut on the machine specifies which depth knob, spacing plate and key blank is required for a specific lock application. It also indicates the proper vise jaw position required to properly grip the key blank for code cutting.

The unit, which comes with a two-year warranty, has thumb-wheel dials to set for code reference a nylon brush and non-exposed cutter wheel.

Dimensions:

- Length: 14 inches, width 15 inches, height 9 inches.
- Shipping weight: 38 pounds.
- Motor: Emerson Model, 1/4 hp, 1725 rpm, 115 volts/60 hertz, single phase, 40 amps rated HP max, sleeve bearings, insulation class:B.
- Cutter wheel: M-2 high speed steel.

*For more information contact
Curtis Industries at: (404) 446-9700
or circle #282 on the Rapid Reply Card.*



DIMARK STEEL KING

If you are looking for a quality machine to cut a variety of slotted type keys, you will be happy to know about the Steel King.

Made in Japan and marketed exclusively through DiMark International from California, this machine cuts all the cuts on bit and barrel keys. It also quickly and accurately cuts safe deposit keys. Of course corrugated padlock keys are a cinch and it is even possible to cut the sophisticated double-bit keys that are used on some European safes.

The Steel King comes with two cutters. A large flat cutter for safe deposit keys and lever cuts on bit keys and a smaller cutter for end cuts and side (or ward) cuts on bit keys. The cutters are both approximately

.040" thick.

The key vises are stacked one above the other, so there is no problem cutting very long keys. The turret vise assembly swivels 360 degrees and goes up and down. These features make it possible to duplicate all the cuts on keys without remounting the key and blank.

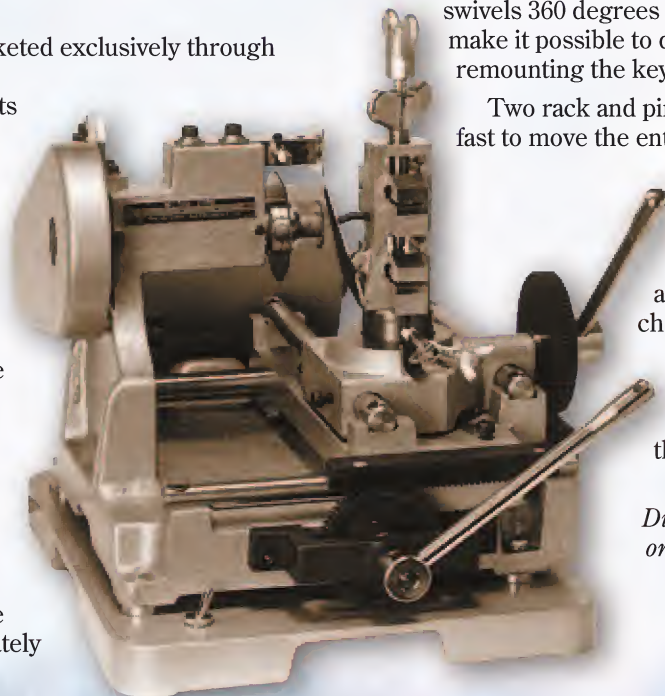
Two rack and pinion systems make it very simple and fast to move the entire carriage base in both directions.

The carriage can also be locked in either axis with set-screws which are a part of the lever handle system.

The Steel King is reasonably priced and it is a welcome addition to the choices available to the locksmith for cutting slotted keys.

The Steel King is 11" wide by 16" deep by 15" high and is delivered in the U.S. with a 110 volt motor.

For more information, contact DiMark International at 800-235-2435 or circle #283 on the Rapid Reply Card.



ESP 3000

The ESP 3000 Semi-Automatic Lever Key Machine operates with a single lever that allows keys to be cut in one smooth motion with one hand, and is designed for long-lasting dependable accuracy for the lifetime of the machine. Just gauge the two keys with the gauge fork, secure the keys in the vises, bring the carriage up and lock it into place. Flip the switch on and bring the key across and the key is cut in one pass. The carriage automatically disengages when done and drops down for easy key removal.

The wide carriage design allows for cutting of longer and large bow keys, and the double-sided reversible jaws eliminate the need for adapters. The carriage is attached to a polished carriage shaft for less play and better lifetime accuracy. The unit operates with a 110-volt, 60 cycle AC, 1/4 horsepower motor, and the 3000-12V are available for 12-volt operation.



The cast bronze gage fork on the ESP 3000 is digitally machined to a tolerance of less than .001" when gauging keys. A special black-oxide coating on the vise jaws assures locksmiths of trouble-free vise operation.

The unit measures 15 inches by 12 inches, and stands 11 inches tall,

including the lever. It comes with a 34MC tungsten steel cutter and durable nylon deburring brush. Rubber bumper feet hold the machine in place on the bench, eliminating the need to bolt it onto the bench.

The Model 3000 is one in a series of three key machines, ranging from manual too automatic, offered by ESP

For more information contact ESP at: (508) 537-6121 or circle #284 on the Rapid Reply Card.

FRAMON 1 AND 2

The Framon #1 is the predecessor of the #2. The #1 has a fixed spindle instead of a tilting version. If you are just getting started and do not plan on cutting Medeco or Emhart keys, the #1 is the ideal machine. It can originate almost any cylinder key in use today, except of course, Medeco or Emhart. Included with the #1 is:

F2MS350	Depth & Space Manual
FC8445	Standard Cutter
F2MS899	Demonstration Video
FC8735	Foreign Auto Cutter
FFS1045	.045" HSS Slotter
F2MS552	Spacing Clip
F2MS402	1/8" Allen Wrench
F2MS451	6" Dial Calipers
F2MSSB1	#1 Spacing Block
F2MSSB2	#2 Spacing Block
F2MSSB3	#3 Spacing Block
F2MSSB4	#4 Spacing Block
F2MSSB5	#5 Spacing Block
DCMS410	Brass Stain

If your plans change about cutting angled keys after you have the #1, a conversion kit is available. A new spindle assembly and Medeco cutter are included.

FRAMON 2

Framon's #2 Code Machine has been a locksmith favorite for over 25 years. The #2 is



sold as a complete code cutting station. Four cutters, five spacing blocks, dial calipers, and Framon's Depth & Space Manual are all included with the machine.

Out of the box, the #2 can cut almost any cylinder key in use today. Included with the machine is everything needed to cut automotive, commercial, flat steel, and Medeco keys. The Depth & Space Manual included with the machine provides all cutting information: over 1,000 depth & space charts are included in the book.

Cutters included with the #2 are the FC8445 standard all-purpose, FC8735 foreign auto, FC8615 for Medeco, and the FFS1045 for flat steel & safety deposit box work. An instructional video is also included which demonstrates cutting procedure on the #2 and the rest of the Framon line of key machines.

The #2 is available in 110 volt AC or 12 volt DC at the same price. All aluminum and steel construction assures a machine that will hold up to daily use with little, or no need, for adjustment. A one-year, parts, labor and freight warranty are included with each machine-during the first year, Framon will cover all expenses including freight both ways for any machine found to be defective.

Also available is the Framon #2J which packs all of the features and benefits of the Framon #2, and adds everything you need to cut Folger Adam, Mogul, Southern Steel, and Adtec keys.

*For more information call
 Framon Manufacturing at: (517) 354-5623
 or circle #285 on the Rapid Reply Card.*

HPC 1200 PUNCH MACHINE™

HPC's 1200 Punch Machine is the only all-inclusive punch machine available! It includes everything you need to punch most automotive, residential, and commercial cylinder keys. The 1200 Punch Machine comes with 3 punches, HPC's Depth & Spacing Book, and a deck of 101 code cards. These cards are manufacturer specific and display all the pertinent information you need to punch keys. They contain depth and space indicators, the proper punch and jaw to use, code series, blanks, and other pertinent information.



It is extremely easy to change from one manufacturer to another because depth and space adjustments are not required. Quite often, just replacing a code card is all that is required. The Punch Machine™ is completely portable and all-inclusive. You can start to punch keys when you take your new machine out of the box!

The 1200PCH includes:

Model Number:	#1200PCH
Weight:	16 lbs/7.5kg
Punches Supplied:	Small cylinder: #PCH-1011 Kwikset/Weslock: #PCH-1014 Standard large cylinder: #PCH-14
Machine Size:	9"W x 12"D x 6 1/4"H (23 x 30.5 x 16 cm)
Bench Size:	9"W x 12"D (23 x 30.5 cm)

Accessories Included:

Code Cards: #PDECK-10
 97 code cards/4 micrometer cards
 HPC Depth & Spacing Book: #HDSB
 Allen Wrench: #WRENCH-4
 Punch/Die Wrench: #WRENCH-5
 Depth Adjustment Wrench: #WRENCH-6
 Manual

Optional Accessories Available:

Hard Plastic Carrying Case: #PCH-CASE
 Little Mac™ Card Making Unit: #MAC-1
 Blank Cards (25 Cards): #MAC-25
 Key Decoder: #HKD-75
 Optional Punch Available

1. 84 degree additional foreign automotive: #PCH-47



HPC SCOTSMAN TUBULAR DUPLICODE™

If tubular key cutting is important to your business, take a look at the HPC/Scotsman Econo Tubular Duplicut™ (747E) and the HPC/Scotsman Tubular Duplicode™ (747XU). While both machines will quickly and accurately duplicate keys from an original or HPC tubular pick, the Tubular Duplicode will cut a much larger variety of tubular keys.

The capabilities of this machine include: dead pin cuts, right and left hand cuts, 8-cut, 10-cut, 11-cut, and pin within a pin in any position. A unique aspect of this machine is that you can duplicate any key, even if it has non-standard space increments. The positive decoding mechanism is the first of its kind. This same mechanism allows you to cut by code, leaving you no guess work. Whatever your tubular key cutting needs are, you will find the right machine at HPC.

The Scotsman includes:

Model Number: #747XU
 Motor: 115VAC (1/15 hp, 2 amps)
 Weight: 10 lbs/4.5kg

Additional Models Available:

Model Number: #747XU240V
 Motor: 240VAC 50 cycle
 Weight: 10 lbs/4.5kg
 Cutter Supplied: 1 Carbide: #22-01
 Machine Size: 16"W x 4 1/2"D x 4 1/2"H
 (41 x 11.5 x 11.5 cm)
 Bench Size: 20"W x 6"D (51 x 15cm)

Accessories Included:

Alignment Pin for Cutter Adjustment: #11-54
 Code Position Indicator Assembly: #25-07
 Wrench: #32-35
 Allen Wrench: #WRENCH-4
 Manual

The 747XU will cut:

Standard Size: .375" (9.53 mm) O.D.
 .312" (7.92 mm) I.D.

Oversize: .400" (10.16 mm) O.D.
 .330" (8.38 mm) I.D.

Small Size: .365" (9.27 mm) O.D.
 .300" (7.62 mm) I.D.

Pin Without a Pin: .400" (10.16 mm) O.D.
 .330" (8.38 mm) I.D.

For more information contact

HPC at: 800-323-3295

or circle #287 on the Rapid Reply Card.

INTRALOCK TOOLS ITL 9700 CODE MACHINE

In 1997 Intralock Tools introduced the ITL 9700 Code Machine with the automatic tilting cutter head to simplify the origination of Medico and Emhart keys. With two years of experience in production and use, increased speed and rigidity have been accomplished with new linear bearings on the 3/4-inch precision shafting and a 5/8-inch ball screw drive. The results have been an unparalleled ability to replicate keys to factory specifications with speed. The reliability version 8.0 programming ensures users of the latest space and depths of new lock requirements. The standard carbide cutter provides long life and accuracy.



Machine Specifications

Operating Voltage: 120 Volts
 Operating Current: 5 A Pk. 2.5 A Cut .5A Idle
 Operating Frequency: 60 Hertz
 Motor Horsepower: 1/4 H.P.
 Cutter Speed: 1600 R.P.M.
 Motor Bearing Type: Sealed Roller Bearing
 Standard Codes: Up To 800
 Custom Codes: 160 (User Modified)
 User Definable Flats: 10 with range of
 0.001" to 0.140"

Display Format: 2 Line 16 Character Alpha-Numeric
 Micro-Power LCD

Keyboard Type: 20 Key Sealed Membrane

Computer Interface: RS232C 75-9600 Baud

Repeatable Accuracy: (+/-) 0.001"

Weight: 84 lbs. packaged

For more information call

Intralock Tools at: (604) 852-8904

or circle #288 on the Rapid Reply Card.

ITL

Push-Button Picking

by Tom Lynch

Some say that it cannot be done. Others want to try a series of combination sequences. Personally, I say pick them. Ultra Hardware of Pennsauken, N.J. offers an imported keyless mechanical push-button combination door lock that is popular and easy to install. (See photograph 1.)

This lockset is operated by depressing the correct combination and then turning an exterior knob. The code combination does not have to be in sequential order to operate. For example: code C2579 can be entered C5792, C9752, etc. However, you must press the "C" button prior to entering your code in order to clear any prior entry attempts.

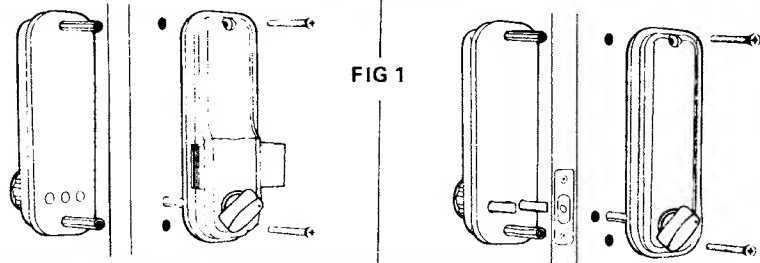
You can choose to use four to six digits as an operating code by simply adding or deleting active and neutral wafers. Active wafers are identified with the color red. Neutral wafers are identified by a blue marking. One wafer has no color identification, this is the "C" button for restoring the wafers to the free position.

Changing the combination is easy and fast. The manufacturer deserves a pat on the back for their written recommendation to use a licensed locksmith to accomplish such a task. They also make it clear that the warranty would be void if the lockset is disassembled by anyone other than a locksmith. Not bad!

1. Ultra Hardware mechanical push-button door lock.



FIG 1



A. Remove Push-button Lock from door.

Resetting the Code

1. Remove Push-button Lock from door by keeping deadbolt unlocking and unfasten the mounting screws from the inside body plate. (See illustration A.)

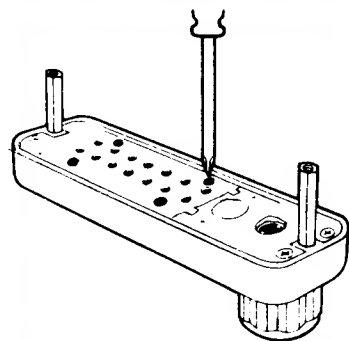
2. Keep backside of the outside body "UP" Remove 4 red marked screws and take off the lid plate. (see illustration B). Remove carefully because wafers in the lock body are operated by springs covered by this lid plate. (See illustration C.)

3. On the lock body there are 14 wafer holes. 5 red marked wafers are identified digits for the unlocking codes preceded by C button.

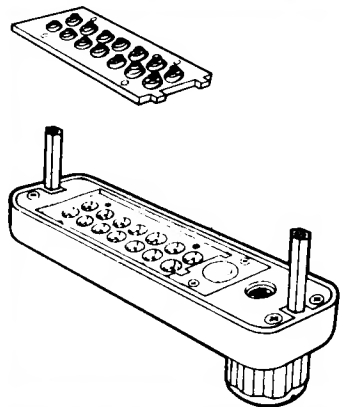
8 blue marked wafers are neutral digits.

1 plain wafer is a clear one for restoring numbers to free position.

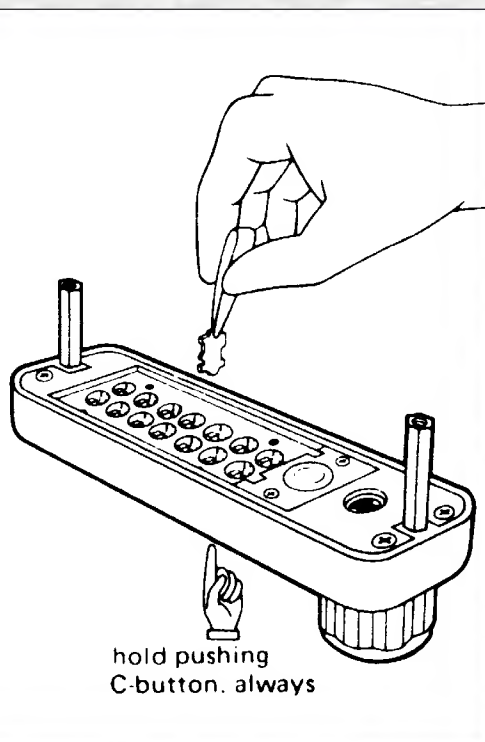
4. Always push and hold the C button while re-setting the code. Pull out identified and neutral wafers, insert the identified wafers to the desired number holes. (See illustration D.)



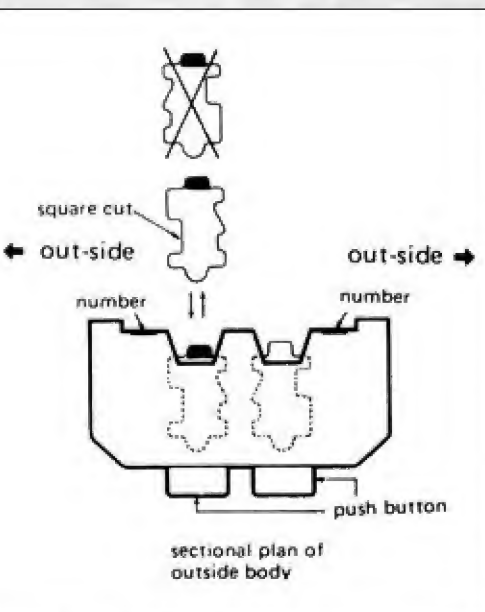
B. Keep backside of the outside body "UP."



C. Always push and hold the C button and pull out identified and neutral wafers..

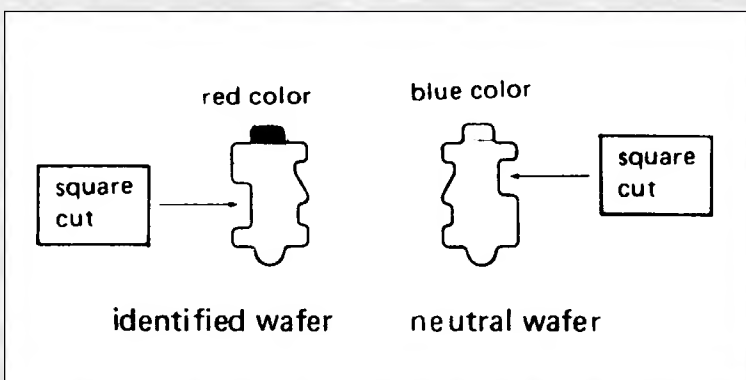


D. Insert wafers in desired holes.



E. Always have the square cut shape of the wafers facing out.

F. you can see an identified or active wafer along side a neutral wafer.



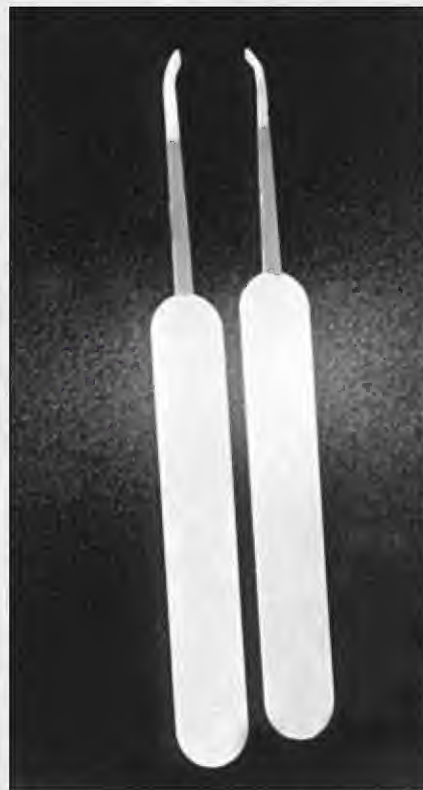
5. Always have the square cut shape of the wafers facing out. (See illustration E).

6. Can also be changed to 6 digits by adding the identified wafers and 4 digits by adding the neutral wafers (one piece each of spare identified and neutral wafers attached.)

7. Put lid plate back to original position and fasten 4 red marked screws.

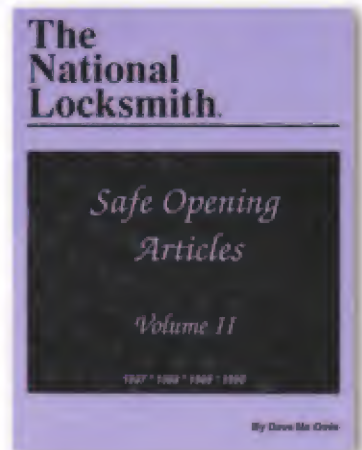
Picking the Lock

Let's examine the wafers more closely. In illustration F, you can see an identified or active wafer along side a neutral wafer. Assume that the rounded ends of the wafers are the front of the lockset as you would normally view it. The active wafer has



2. Two modified lab picks that have been ground thin enough to pass by the buttons.

Safe Opening Articles

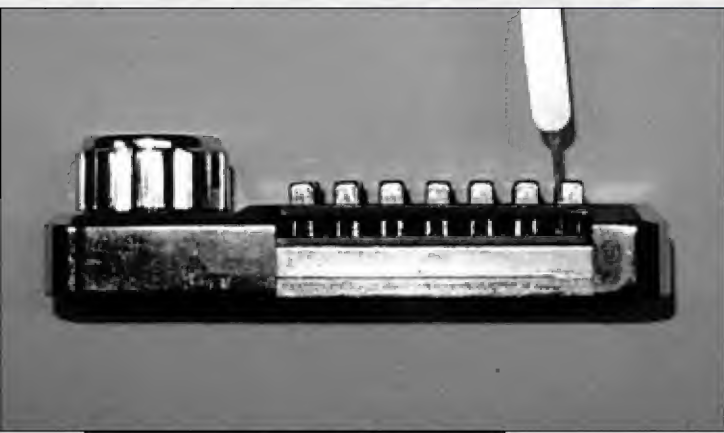


Dave McOmie's original articles from when he first started writing for The National Locksmith are reprinted in this book.

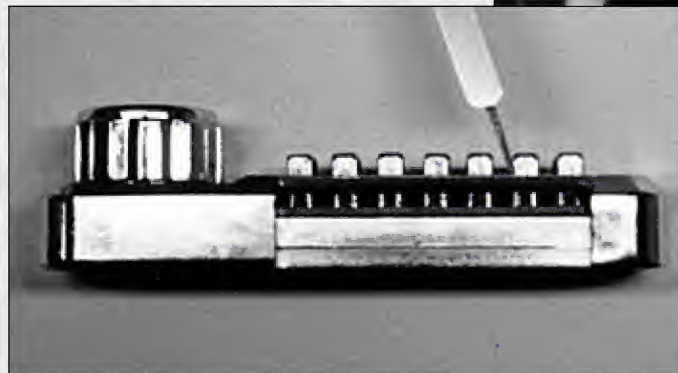
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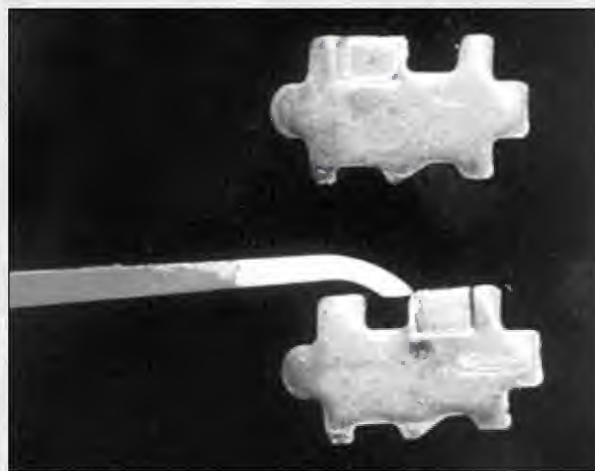
#SA - 2



3. Place your pick in the lower outside corner of your button and insert up to your depth.



4. If the wafer is active the rear of the pick will drop noticeably.



5. The object is to feel the active wafer by passing up through the cutout.

it's cutout to the left facing out and it is positioned towards the front of the lockset. The neutral wafer also has it's cutout facing outward as directed, but it's cutout is to the rear. No matter where you place these wafers they will always end up with the active cutout forward and the neutral to the rear.

Refer back to *illustration E*, and see how these cutouts appear within the lock body. The edge of the wafer is in alignment with the edge of the buttons. These buttons have some free motion and do offer some access into the lock body along the outside edge.

In *photograph 2*, there are two modified lab picks that have been ground thin enough to pass by the buttons. They have also been bent slightly inward to allow the tips to be positioned in the area of the active cutout. Measure from the shoulder of the pick $5/8$ " and mark a depth line. I

used nail polish which has held up well. The tip will have approximately $5/32$ "- $3/8$ " left. This depth line will allow an accurate alignment under the active cut.

Now place your pick in the lower outside corner of your button and insert up to your depth line. (*See photograph 3.*) Keep your pick as straight as possible!

With very little pressure, tap the end of the pick to raise the tip upward within the lock body. If the wafer is neutral, the pick will move only slightly and maintain a horizontal position. If the wafer is active the rear of the pick will

drop noticeably. (*See photograph 4.*) Never force or apply heavy pressure.

The object is to feel the active wafer by passing up through the cutout. (*See photograph 5.*) If the feel is solid then you have hit a neutral wafer, since its cutout is positioned to the rear and the pick does not penetrate that deep. Record all active buttons and try the combination to open. Since the combination is non sequential you just have to enter the combination at random and you are in.

For more information on Ultra Hardware Products call: (609) 663-5050, 800-426-6379, or circle 292 on Rapid Reply. **INL**

1997 DODGE DAKOTA



by
**Michael
Hyde**



1

The Dakota has been updated to look similar to the popular Dodge Ram full size pick-up. The Dakota uses an improved security ignition and uses the wide body tumblers in all locks. The keyway is standard Chrysler product, double-sided key with seven cuts on each side and four possible depths. There is no glove box lock on this model. Both door locks and the ignition contain all the tumblers.



2

This model has vertical linkage. Start out with a couple of good wedges and a hooked type tool.

The type of opening tool we used was bought from High-Tech Tools.

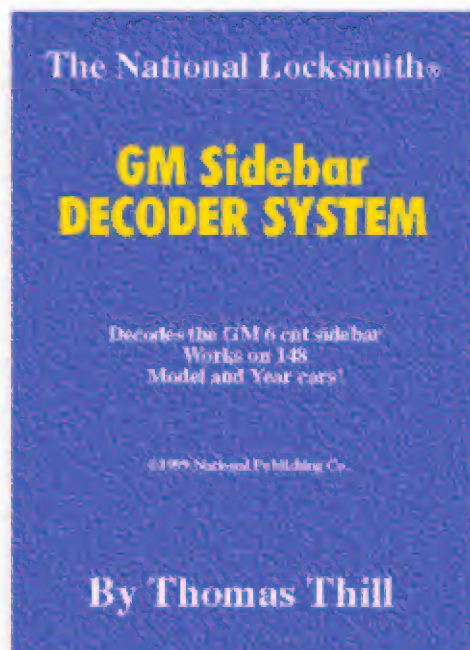


3

OPENING

Insert the tool in the door cavity and pull up on the linkage rod to unlock the truck.

4



GM Sidebar Lock Decoder System

Tom Thill, the author of a new book, has invented an amazing new way to make keys for six cut GM Sidebar Locks.

[CLICK HERE TO LEARN MORE](#)



#TT - 1

ignition Lock

5 This truck has dual front Airbags. The column uses a two piece plastic shroud that covers the ignition lock assembly. Removal of the airbag is not necessary to service the ignition lock.



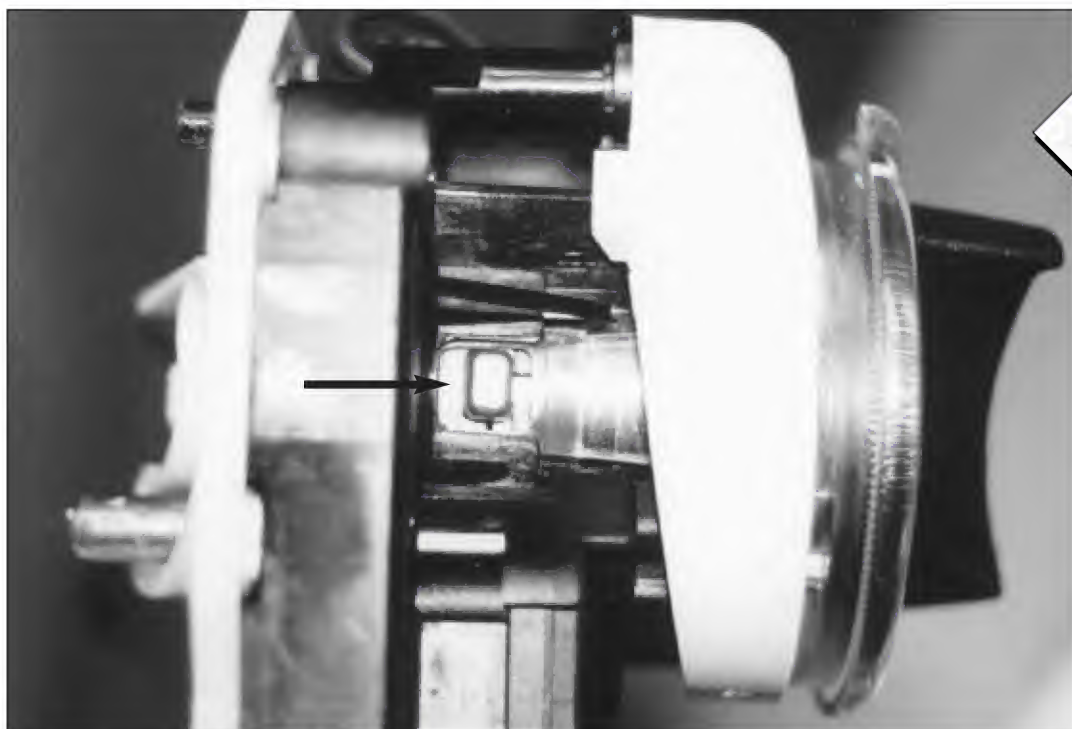
6 To remove the plastic shroud, you must remove the three #20 Torx screws.



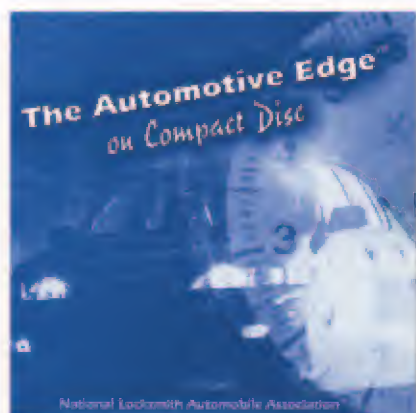
7 A view of the ignition lock cylinder and ignition control module. The control module can be removed and replaced easily by simply removing the three #25 security Torx screws.

Replacing the module would be necessary if you had a broken key stuck in the ignition or if the ignition stopped operating correctly. Average cost of the module is \$35.00.





8 A view of the side of the ignition lock cylinder and the active retainer. Insert a working key, rotate it to the "ON" position and depress the retainer. The cylinder will slide straight out. On earlier models you had to turn back the cylinder to the "OFF" position for removal.



AutoEdge

This CD contains over 750 pages of automotive locksmith service.

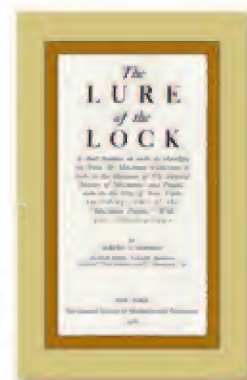
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#AE - CD

The Lure of the Lock

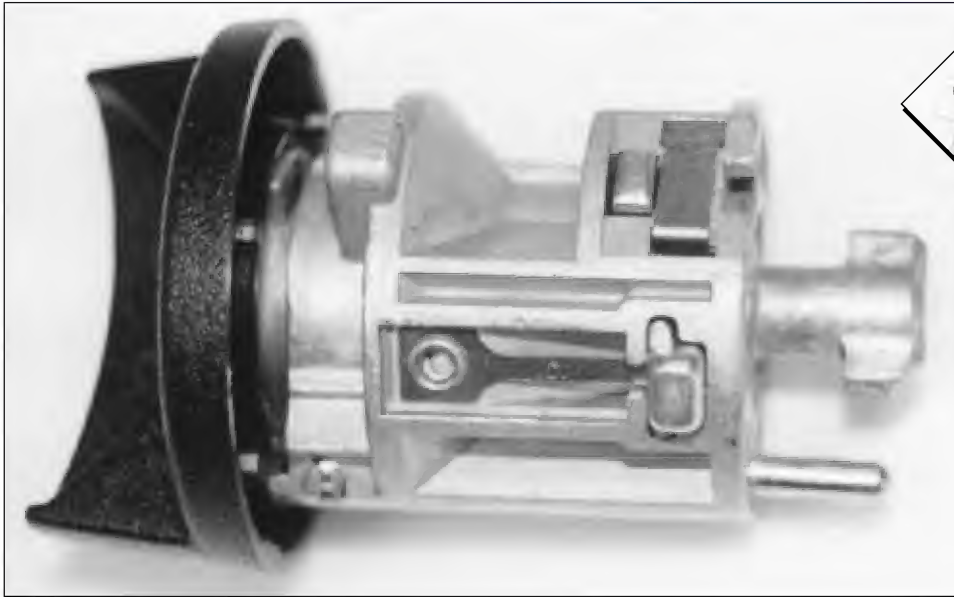
This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.



[CLICK HERE TO LEARN MORE](#)

#LURE





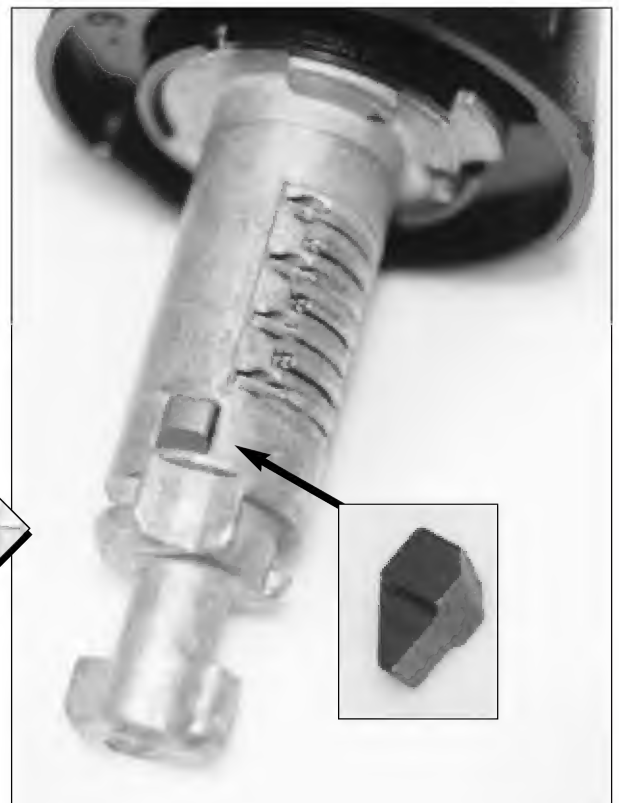
9

The ignition lock cylinder removed. For 1997 models they have introduced an interlocking tailpiece. There is also an anti-theft pin that sticks out the back of the lock. If the lock was forced out of the control module the truck could not be started.



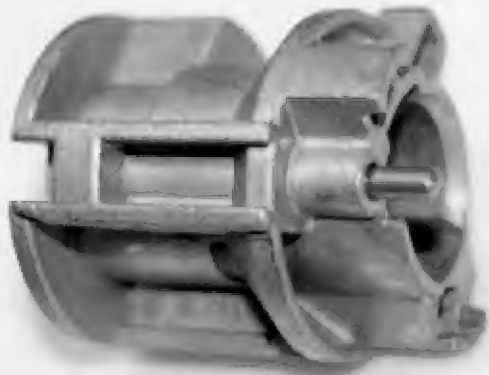
10

To disassemble the lock insert a working key and rotate it back to the "ACC" position. Depress the detent pin and rotate the cylinder even further. The cylinder plug should now slide out.



11

There is a small buzzer actuator that can easily be lost. Be careful when disassembling the lock cylinder.



12

The detent pin and spring. The detent pin is what gives you that feel that the lock is in the "OFF" position. The detent can fall out when you remove the cylinder plug.

The ignition cylinder plug contains all seven tumblers. These tumblers are the newer wide body tumblers. The chance of tumbler breakage has been minimized. This was a large concern on previous models with the smaller weaker tumblers.

13



The Fifteen Minute Safe Opening Technique

A valid, quick and effective operating technique for many round head lift out doors. In these tactics, the following:

- Major
- Star
- U.S. Security
- Fryer
- Garry
- LaGuard
- And others...

by
John
Takahashi



15 Minute Safe Opening

This book deals exclusively with round head lift out doors. Shows five ways to open a Major; three ways to find the Dog Pin on a Major; four ways to open a Star; four ways to open a LaGuard style round head.

CLICK HERE TO LEARN MORE



#JJ - 1

DOOR LOCKS

The door lock cylinder is held into the outside door handle by a wire clip.

14



15

The door panel must be removed to service the door lock.



16

To remove the door panel, first remove the #25 Torx located by the door pull.



17

Remove the phillips head screw that is recessed at the top of the panel.



18

There is a Torx screw that needs to be removed behind the inside door release handle.



Ford 8 Cut Decoding Key Set

Complete with 143 specially cut keys and simple directions. You get door and ignition keys within just a couple of minutes.



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#FD - 8

**FORD 8 CUT
DECODING
KEY SET**



19

There are two screws on the bottom of the panel that need to be removed. The first one is located on the forward bottom section of the panel.

The other one is located on the bottom rear section of this panel.

20



21

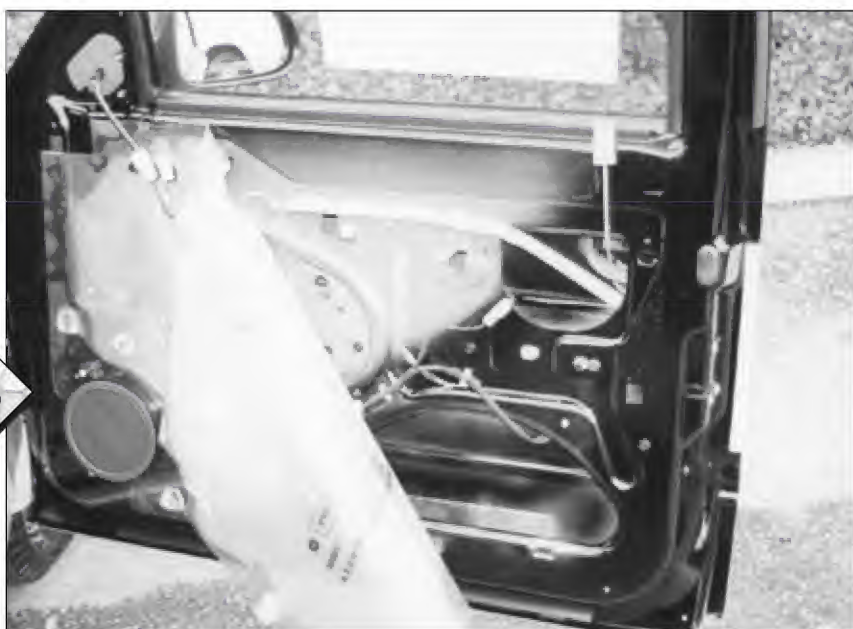
Now that the screw fasteners have been removed the panel can be taken off. The panel uses lock-in hooks as the remaining fasteners. Lift up on the panel to remove.





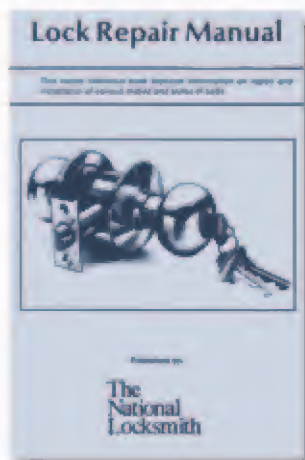
22

*Disconnect the
linkage rod from the
panel.*



23

*A view of
the door
with the panel
removed.*



Lock Repair Manual

Here, under one cover you have a tremendous amount of lock servicing information. Next time you run into a problem chances are you'll find the answer in the Lock Repair Manual.

[CLICK HERE TO LEARN MORE](#)

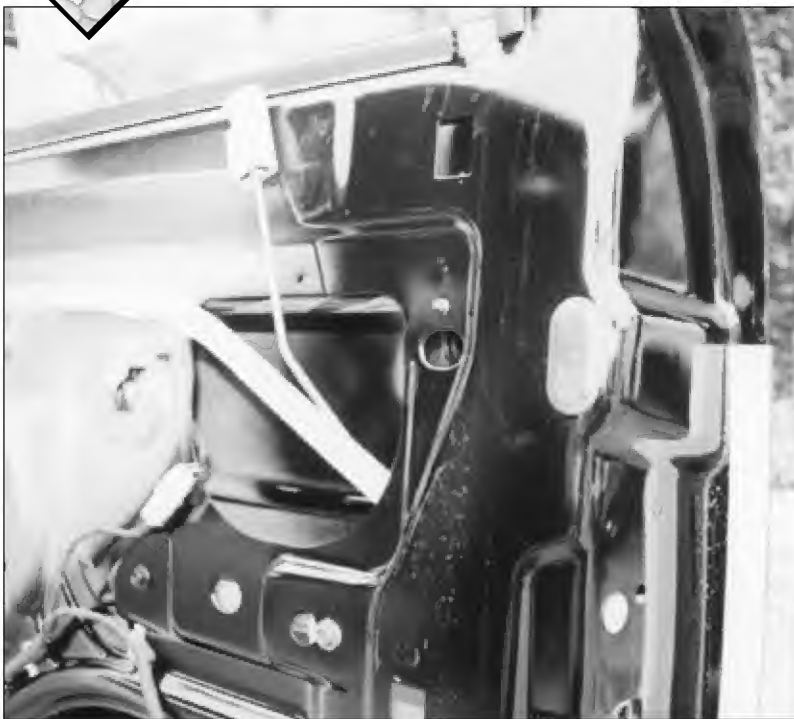


#LRM - 1

24
To make it easier to get the lock out, you might want to remove the two screws that hold the rear window track in place. You don't have to remove the window track, just move it to the side.



25
Next, remove the rubber plug to gain access to the rear handle nut. Remove the rear nut and the front nut. Use a 8mm socket. Don't forget to disconnect the lock cylinder linkage rod.



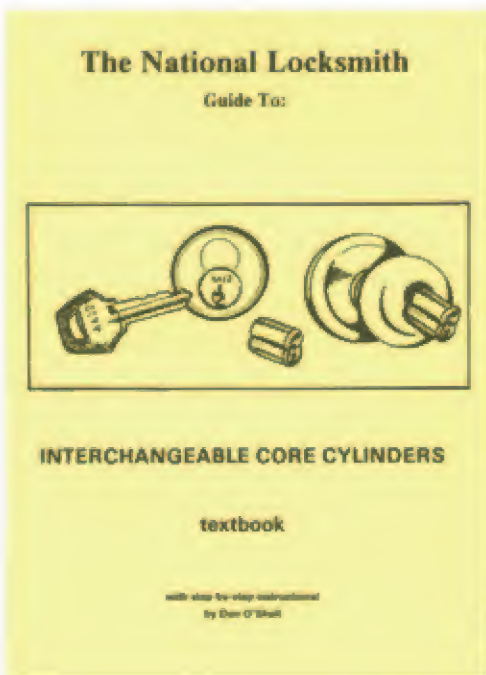
26
The handle can now be moved away from the door enough to slide the cylinder-retaining clip off and slide the cylinder out of the handle.





27

This particular model has an electronic switch mounted to the rear of the cylinder. Be careful when removing the switch, it is made of plastic.



Interchangeable Core Cylinders

Covers all this...

- Best/Falcon/Arrow/Eagle/(A2)
- Best A3
- Best A4
- Corbin X Removable Core
- Corbin Z Removable Core
- Russwin Removable Core
- Emhart System 70 Removable Core
- Sargent Removable Core
- Schlage, Yale, Lockwood
- Medeco Removable Core

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#ICB - 1

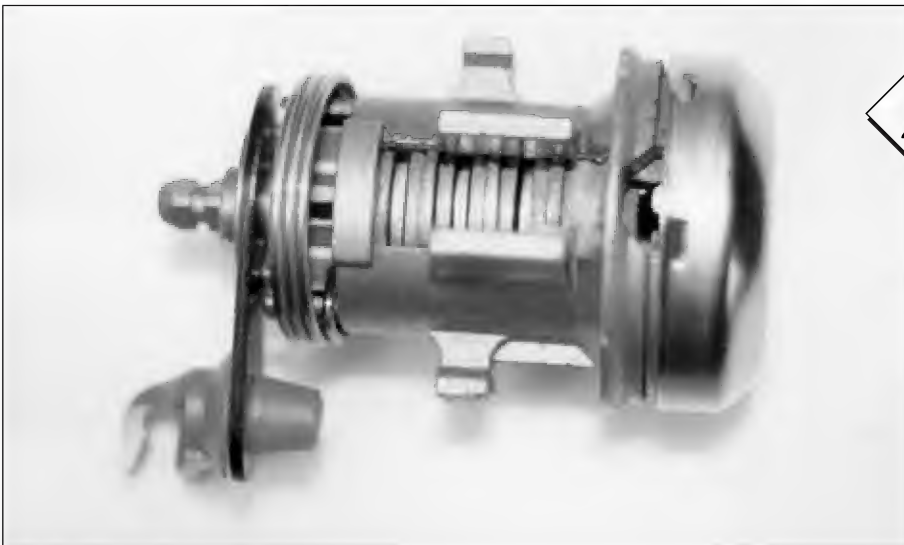
The door lock
cylinder
and lock
retaining clip.

28



29

To disassemble the
cylinder, you must first
remove the face cap.
Save the cap, it is re-
usable. All the tumblers can
be seen from the large cutout
for the drain hole.



The tailpiece
is held to
the
cylinder by
a "C" clip.

30



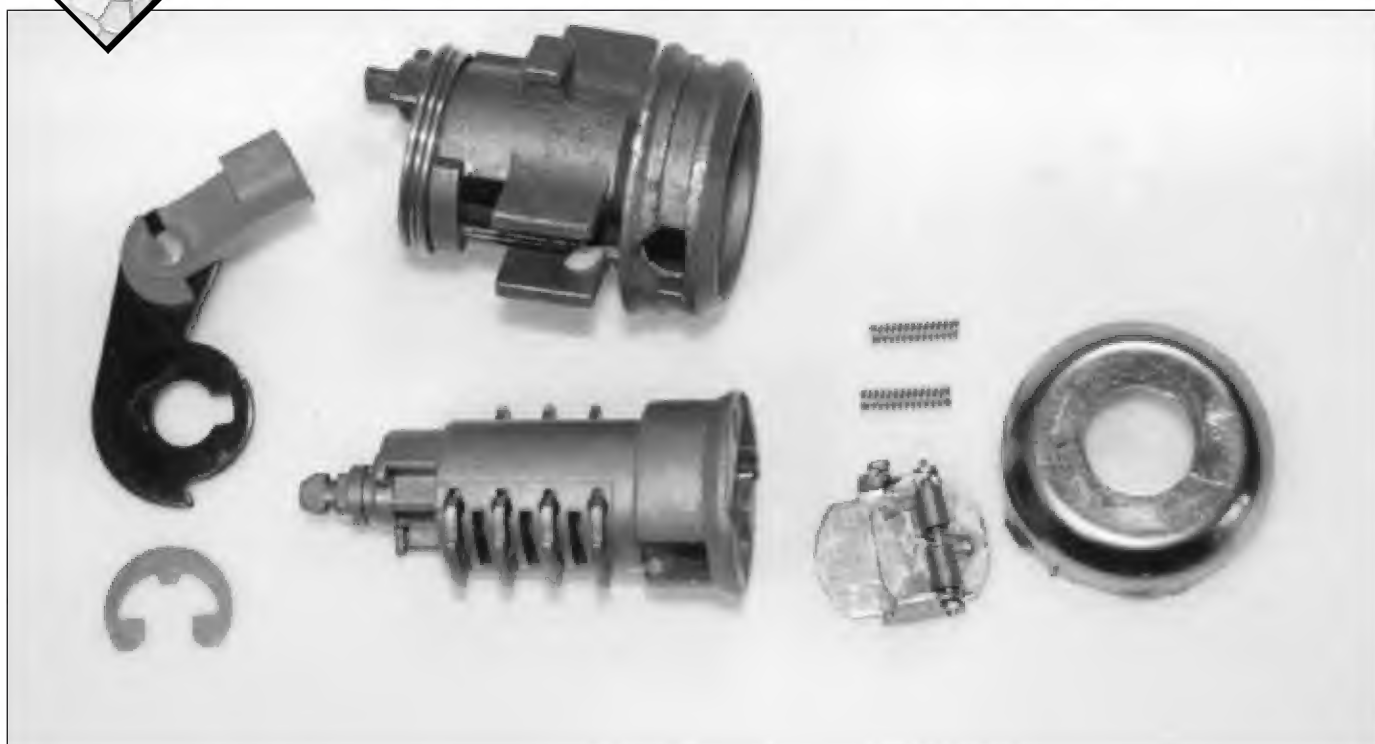
With the face cap removed you can see the shutter assembly. The shutter assembly snaps into place into the plug.

31



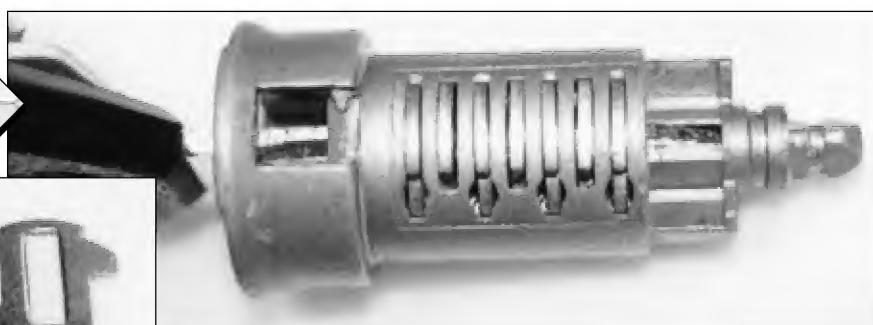
The door lock cylinder disassembled.

32



The door lock cylinder plug contains all seven tumblers. The door lock also uses the newer wide body tumblers.

33





34

The keying kit is made by Strattec and is part number 702962 or 701417.

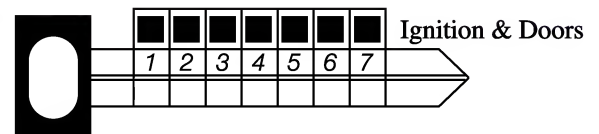
MAKING FIRST KEY

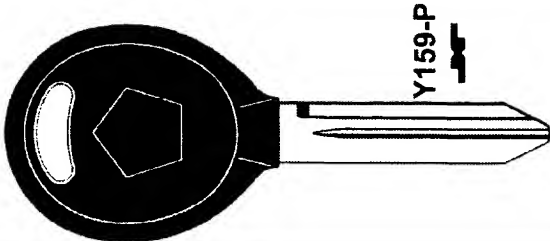
Method 1. Check owner's manual for codes, written in by the dealer.

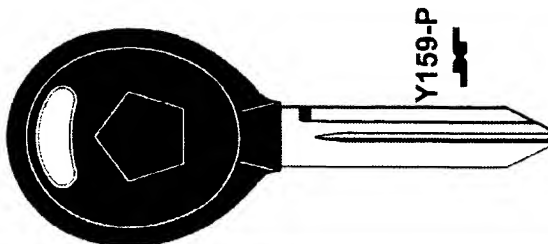
Method 2. Use a tool called an 'EEZ-Reader' to determine the cuts in the door for positions 1 through 7. You will then have all the cuts necessary for a complete key.

Method 3. Use Try-Out Keys

Method 4. You must remove a door cylinder and decode it. Once you have those seven cuts, you will then have all the cuts necessary for a complete key.

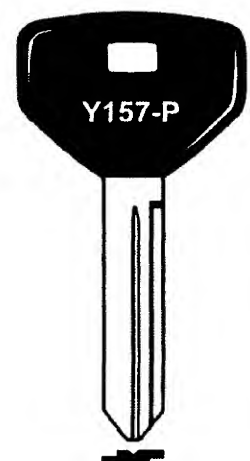


B								CODE SERIES: L0001-3580	
Bow		STANDARD SPACING					Tip		
1	2	3	4	5	6	7	Cut to Cut: .092		
.849	.757	.665	.573	.481	.389	.297			
Bow		FRAMON SPACING					Tip		
1	2	3	4	5	6	7			
.052	.144	.236	.328	.420	.512	.604			
Key Blanks:		ILCO: Y157, Y159				SILCA: CY22, CY24			
Reed Codes:		11-05-016				HPC 1200 CM		X60	
Curtis Clipper:		Cam CHRY-4		Carriage CHRY-4B		ITL MFG:		515	
Pak-A-Punch		PAK-C2				M.A.C.S.:		2	
NOTES: FRAMON—Use Ford 5 pin clip and set for first cut at .052									
									



DEPTHS

1	.340
2	.315
3	.290
4	.265



IntelLock Keyless

Electronic Locks

The convenience and security offered by keyless electronic locks was once seen only in sci-fi and spy movies. It can now be installed in homes and businesses more affordably than ever. In fact, consumers who see electronic locks often want them installed at their homes. The business-savvy locksmith will be keen to reap the financial benefits of offering customers this leading-edge lock technology.

No longer a specialty market, keyless electronic locks are now used in a variety of applications. While containing cutting-edge technology, the electronic lock is quite practical, yet elegant, in its design. For instance:

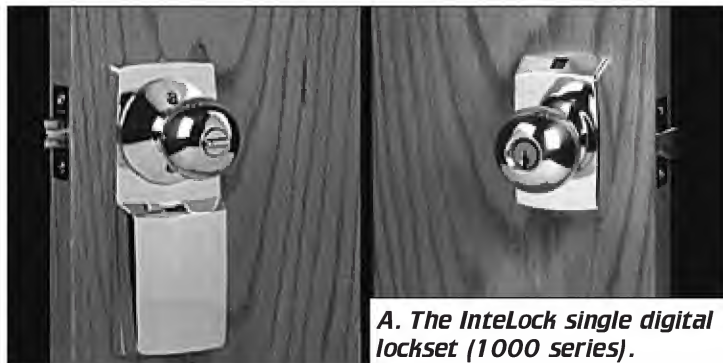
the InteLock uses electronic technology, battery supplied power, led readout, and a very small portion of the human memory (a three to four digit code to be exact) to operate.

The locks are available as either a single digital lockset (1000 series) (*see photograph A*), a single digital deadbolt (2000 series) (*see photograph B*) or a digital lockset with response companion deadbolt (3000 series) that operate interactively as a set (*see photograph C*.) All models eliminate the need for a key entirely. InteLock will open when the knob on either the lockset or deadbolt is turned right, left and right again and the correct sequence of numbers, say 3-1-5, appears on the display window. The 3000 series lockset with companion deadbolt requires that a

digital combination be entered only in the lockset. When a correct code is input in the lockset, an inferred beam communicates with the deadbolt, allowing the bolt to be retracted. There is no need to enter a combination in the deadbolt as well.

The entry code can be changed easily, temporary codes can be programmed in and erased, and, since the numbers show up on a self-lighting display, there's no after-dark fumbling. And, the lock also works with a key if there are people authorized for access that prefer to do it the old-fashioned way, or those who want the ability to override the code.

Because of the security, no need for a key, and the ability to change the code, many people are finding that keyless electronic locks are the



A. The InteLock single digital lockset (1000 series).



B. The InteLock single digital deadbolt (2000 series).

**C. The
InteLock
digital
lockset with
response
companion
deadbolt
(3000
series) that
operate
interactively
as a set.**



solution they've been looking for to simplify their lives. This offers a whole new range of products, which a locksmith can offer his or her customers, and by which to grow his business as well.

Residential Applications

In addition to those homeowners who must have the latest technology and gadget, of which there are many, there are several reasons why a house should have a keyless electronic lock. For instance: homeowners who have house guests, cleaning people, house-sitters, dog walkers, or repair people may want the convenience and security of giving them one-time access, or limited access, rather than giving them a key which could be copied and used later, for less above-board activities.

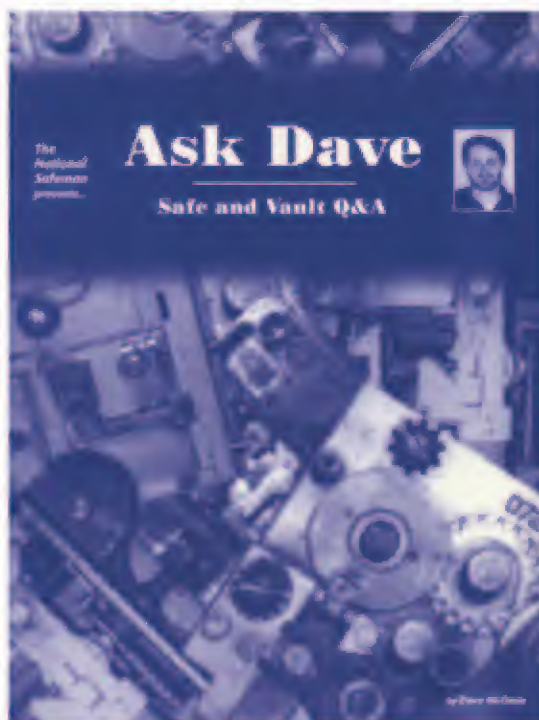
For dual-income or single parent households with children, a keyless

electronic lock is the ideal solution for avoiding child lockouts while the parents are at work. With no key to lose, a child can remember the simple code, and even if he or she forgets, a simple phone call to the parent from the neighbor's can give the child access. The keyless lock is also ideal for avoiding those occasional, yet inevitable, moments that everyone experiences - running out the door without a key or it closes behind you, and you're locked out waiting for a family member or neighbor to get home and let you in.

Resort and Vacation Rental Applications

The electronic keyless lock is also ideal for resort and timesharing applications. The ability to quickly change the code after each rental simplifies life and enhances security. With InteLock technology, each guest is given a code and there are no keys to lose. The convenience for guests and owners as well as the property management is well worth the initial investment. From the standpoint of secure guest access, InteLock has

Ask Dave



You asked. He answered. This is safe
and vault Q&A with an attitude.

CLICK HERE TO LEARN MORE



#AD - 1

made managing our ski and summer rental property much more efficient.

Apartment Applications

Apartment owners will find that keyless remote entry saves them hassle and money by eliminating the need to rekey each apartment when a tenant vacates. The fact that the InteLock electronic keyless lock system has a key override that allows the owner or manager access, while the tenant has the convenience of carrying fewer keys, makes the lock very appealing. In addition, locksmiths can offer apartment owners and managers a service contract to check the locks from time to time, and change the batteries periodically.

Digital Lock with Response Deadbolt (3000 Series)

Door Preparation - Model 3000

When replacing an existing lock and deadbolt, first remove old hardware. The lockset and deadbolt must have the same backset to operate correctly. The lockset will fit either a 2-3/8-inch or 2-3/4-inch backset, however, the deadbolt will fit only a 2-3/8-inch backset. If needed, exchange your 2-3/8-inch bolt for a 2-3/4-inch bolt.

Hardware Installation

The Lockset (Model 3000):

Insert the latchbolt so that the beveled side of the bolt hits the strike. (See illustration 1.) If the existing latch cutout differs from the InteLock latch, use a chisel to adapt the cutout. Fasten securely with 3/4-inch screws using two 7/64-inch pilot holes.

From the outside of the door, feed the flexible cable underneath the latchbolt, then slide the exterior half of the lock, including the flexible cable, all the way through the hole until it engages snugly with the latch. Be sure the flexible cable goes underneath the latchbolt. (See illustration 2.)

On the lockset interior, remove the battery cover by sliding it up and off.

Hold the base plate, upside down with the back facing up, and slide the end of the flexible cable down the ramp until it covers its own image printed on the ramp. Fold tab and use thumbs to press down and in on the folded edge of the tab. Apply pressure evenly until you feel the cable slide into the connector. (See illustration 3.)

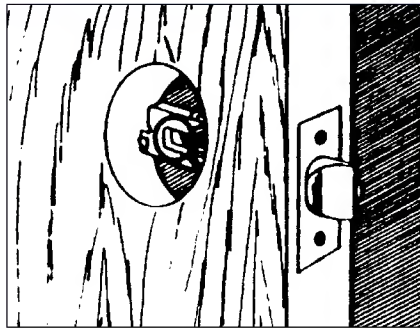


Illustration 1.

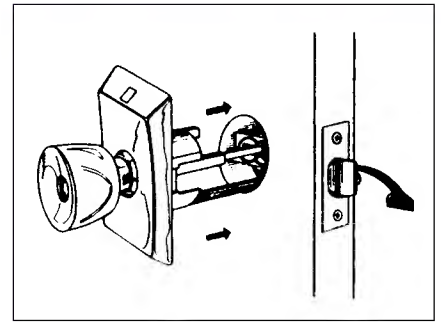


Illustration 2.

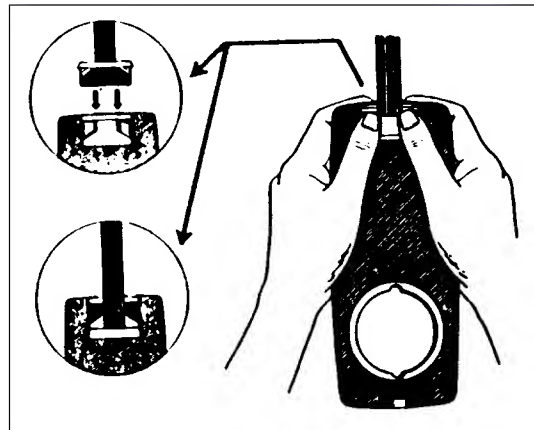


Illustration 3.

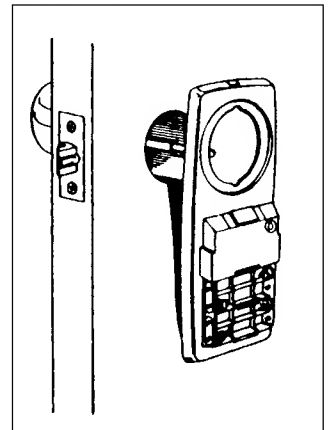


Illustration 4.

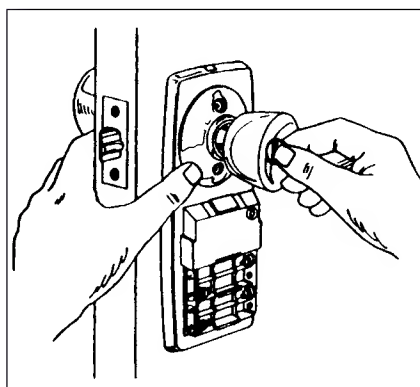


Illustration 5.

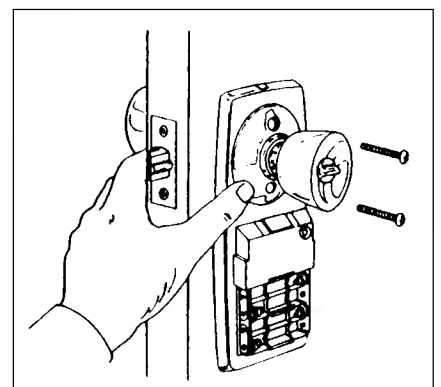


Illustration 6.

Rotate the base plate up to the door, allowing the flexible cable to fold between the base plate and the door. (See illustration 4.)

Align the hole in the base plate with the hole in the door. Hold both the inside and outside units and install the interior knob. If the knob does not seat to the base plate, rotate the turn button until the knob drops into place. (See illustration 5.)

Use fingers to begin installing the top and bottom 1-inch long screws. Be extremely careful not to cross thread screws. (See illustration 6.)

Check alignment of inside and outside units to make sure they are

parallel to the door edge (vertical) and tighten the screws snugly. Do not over-tighten.

Use only screws provided with the lockset. Improper screw size can cause damage to internal components of the lockset.

The Deadbolt (Model 3000):

Retract the deadbolt into the housing by inserting a flat bladed screwdriver into the center slot and rotating 90 degrees to horizontal position.

Insert the deadbolt latch into the latch hole on the door edge.

Continued on page 52

Be sure to orient as shown, with the center slot of the bolt in the lower position. (See illustration 7.)

Extend the deadbolt again by inserting a flat bladed screwdriver into the center slot.

Fasten with 3/4-inch wood screws using two 7/64-inch pilot holes.

Insert Deadbolt Exterior Housing:

Determine if you have a right-hand or left-hand door.

When facing the door from the outside (or corridor side), if the hinges are toward the left, your door is a left-handed door. If hinges are towards the right, your door is a right-handed door.

Determine the orientation of your deadbolt. The locking bar and pawl can be rotated 90 degrees. (See illustration 8.)

Depending on your door, rotate the pawl to match the appropriate left hand door or for right hand door. The illustration on the left is for left hand doors, the one on the right for right hand doors. (See illustration 9.)

With the pawl in the correct position, the locking bar should be vertical (up and down). If it is horizontal (side to side), pull it out completely free of the pawl and reinsert it in the vertical position. Do not allow pawl to move when locking bar is removed. Press in firmly to snap locking bar into place. (See illustration 10.)

With the locking bar in a vertical position, (and with the deadbolt fully extended) install the exterior deadbolt assembly by sliding the locking bar into the vertical slot of the deadbolt latch. Make sure the connecting cable is pushed all the way through the hole and over the deadbolt. (See illustration 11.)

Install Base Plate:

Remove the battery cover by sliding it up and off.

Remove the round black thumb-turn cup from the interior base plate by pulling up on its edges. The cup will snap off. (See illustration 12.)

Hold base plate up to hole in door and pull connecting cable from exterior assembly through the hole in the bottom of the battery compartment.

Rotate thumb-turn towards the door edge (locked position, bolt extended.) (See illustration 13.)

Place locking bar on exterior assembly into the cross on the back of

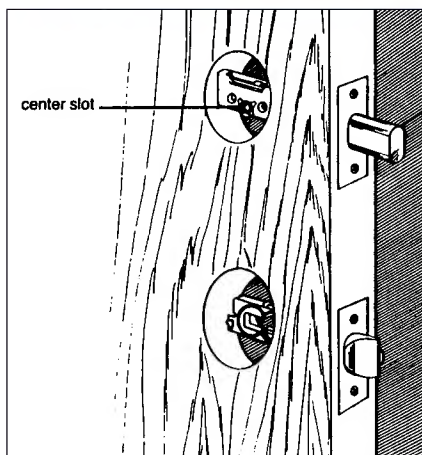


Illustration 7.

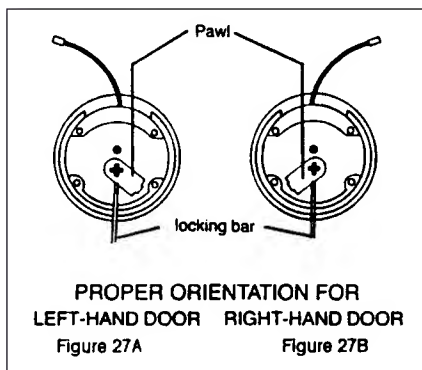


Illustration 9.

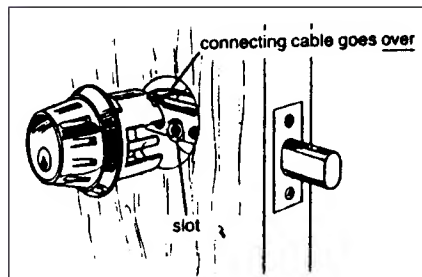


Illustration 11.

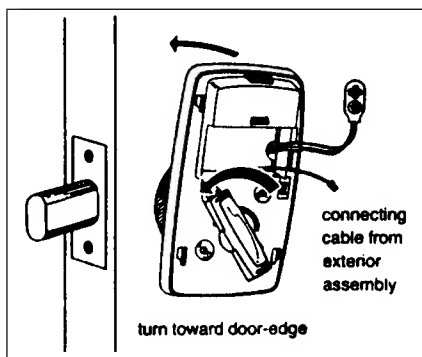


Illustration 13.

the thumb-turn. (See illustration 14.) The base plate should now be flat against the door.

Before installing screws, test bolt orientation by rotating thumb-turn. It

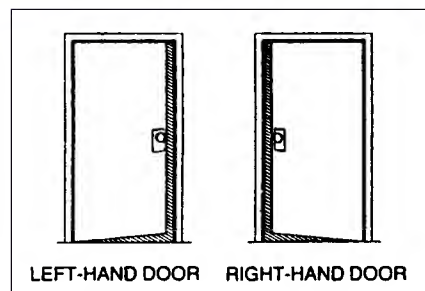


Illustration 8.

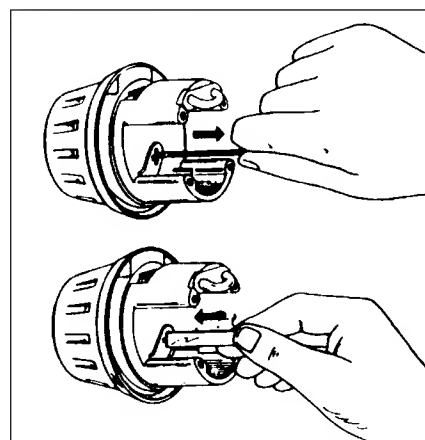


Illustration 10.

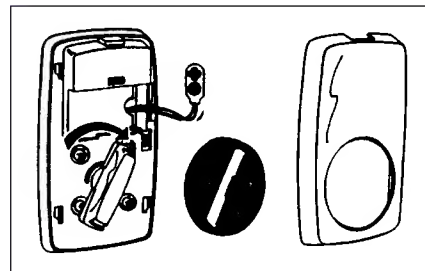


Illustration 12.

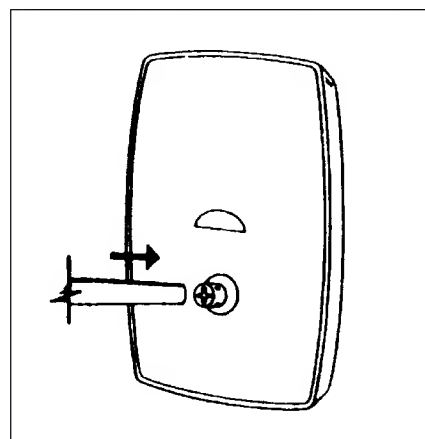


Illustration 14.

should operate the bolt. If the thumb-turn will not rotate, check that the unit is handed correctly.

Holding exterior housing in one hand, mount base plate with two of the

four 1-inch flat head screws provided. Begin with fingers to avoid cross threading screws. You will need to turn the thumb-turn to install the last two screws. (See illustration 15.)

Align base plate parallel to the door-edge, then tighten screws snugly. Do not over tighten.

Test thumb-turn for smooth operation.

Connect Cable:

Insert the plug on the connecting cable into the receptacle. (See illustration 16.)

The dot on the side of the plug should face the inside of the base plate. (See illustration 17.)

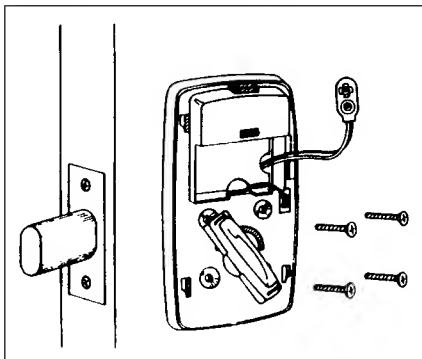


Illustration 15.

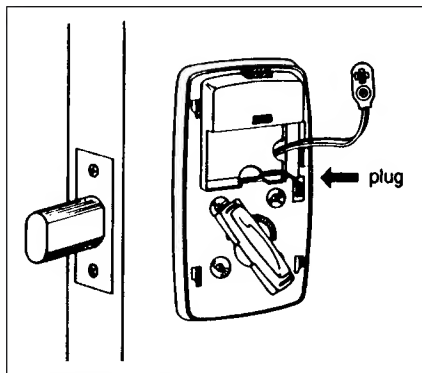


Illustration 16.

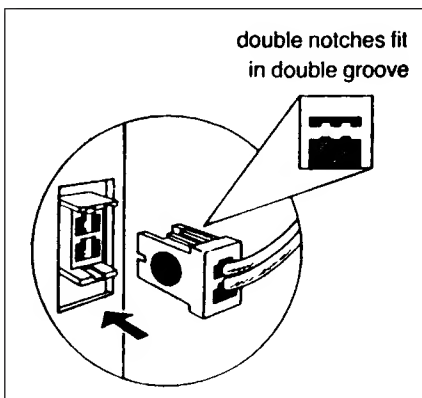


Illustration 17.

Install Deadbolt Battery:

Route the connecting cable along the bottom edge of the battery compartment and out the lower right corner to avoid interfering with 9-volt battery.

Attach a 9-volt alkaline battery to the battery clip, and insert the battery into the battery compartment.

Snap on the thumb-turn cup by setting it over the thumb-turn and pressing it firmly into place.

Replace battery cover by placing four legs on cover into slots in base

plate. Then push in on the cover while sliding it down.

Rotate the thumb-turn back and forth and check that it operates without binding.

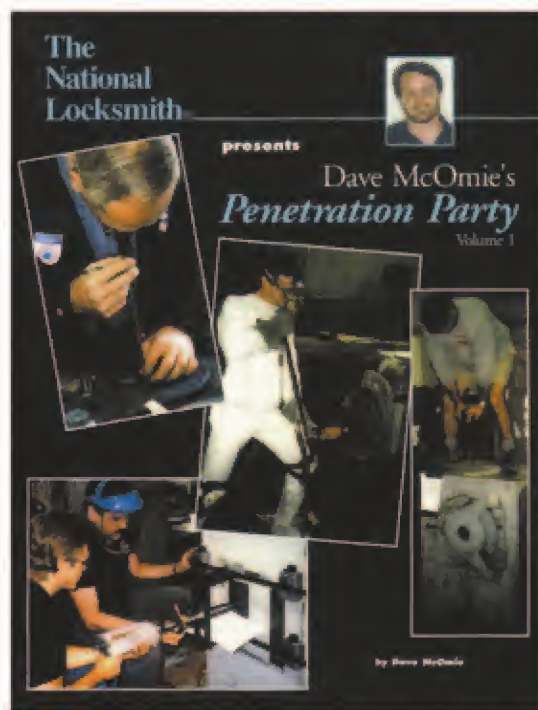
If the thumb-turn is binding, check that the black thumb-turn cup is seated properly. Also check that the connecting cable and battery wires do not interfere with the thumb-turn cup.

Quick Test

After Installing or Changing Battery:

Press and release the exit button.

Penetration Party



- Uncensored! • The Safes! • The Tools!
- The Action! • The Perfect Openings!
- The Bloopers and Blunders!
- The Slick Tricks!

CLICK HERE TO LEARN MORE



#PP - 1

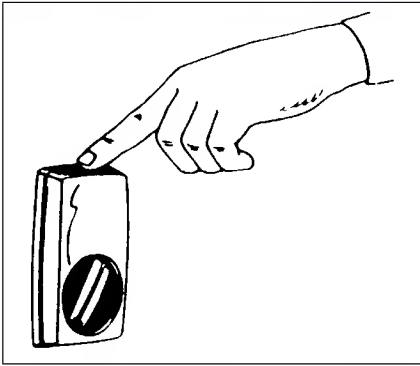


Illustration 18.

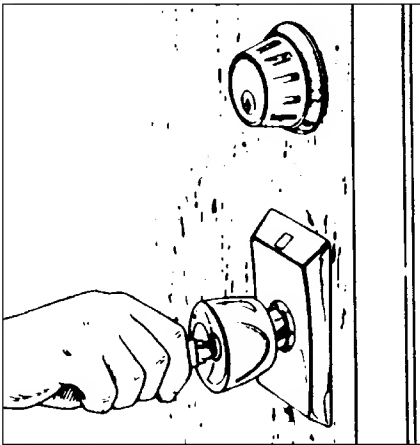


Illustration 19.

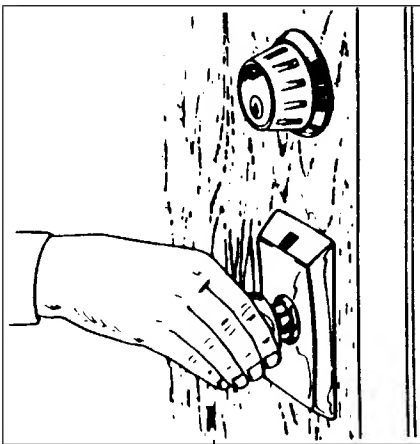


Illustration 20.

Two short beeps should sound, indicating the deadbolt is ready to be activated. (See illustration 18.)

Operating the Lockset

With a Key:

Your InteLock operates with a key like any standard key in the knob lock. (See illustration 19.)

Without a Key:

Unlock-enter your personal (or alternate) code. The flashing "U" indicates when the door is unlocked. If you make a mistake entering your

code, release the knob and enter your code again. (See illustration 20.)

To lock:

Operate like any standard key in the knob lock. When the turn button (inside) is horizontal, the door is locked. When the button is vertical, the door is unlocked.

Security Alarm

You have 30 seconds to enter a correct code. This allows you to come and go freely without sounding the alarm. The alarm is activated 30 seconds after an unsuccessful attempt to enter a code.

When activated, the alarm sound for 10 seconds. The alarm discourages anyone from tampering with the lock. Rotating the interior knob interrupts the alarm once it is sounding.

Low Battery Indicator: Flashing "L"

As a general rule, quality alkaline batteries should last more than a year. Rechargeable or non-alkaline batteries are not recommended. Your InteLock will warn you when the batteries are getting low by displaying a flashing "L" instead of "U" when you enter your code.

After the display first shows a flashing "L", you will still be able to operate the lock for at least a month. However, as soon as the "L" appears, we suggest you change the batteries within 10 days.

The Deadbolt

The InteLock deadbolt can be operated by your personal or alternate codes. The lockset communicates with the deadbolt with an infrared signal, similar to a TV remote control. The signal path goes from the top of the lockset to the bottom of the deadbolt housing. (See illustration 21.)

Exit Button:

Used when locking the deadbolt upon exiting.

Infrared Signal Path.

Security Ring:

Rotating the ring extends and retracts the bolt.

Unless a correct code is entered or the exit or the exit button is pressed, the security ring will spin freely, resisting attempts to wrench or pry the deadbolt open. (See illustration 22.)

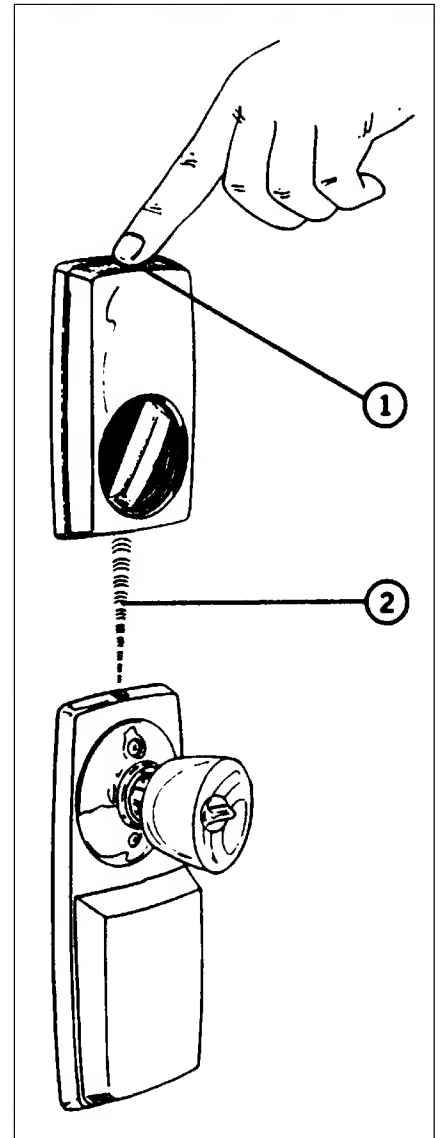


Illustration 21.

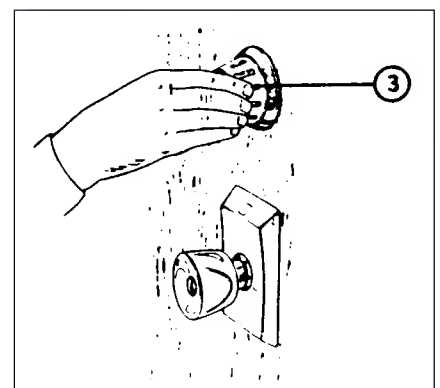


Illustration 22.

Locking the Deadbolt When Exiting

With a Key:

You may lock the deadbolt with a key like any standard deadbolt.

Continued on page 56

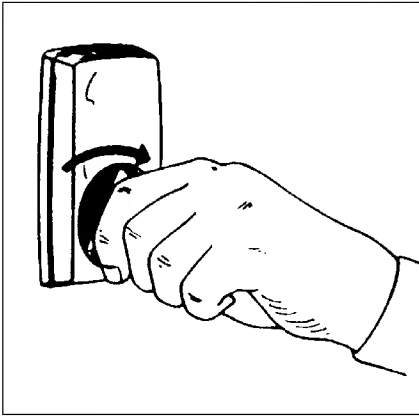


Illustration 23.

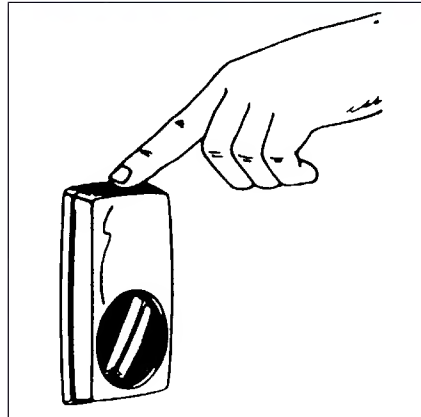


Illustration 24.

Without a Key:

Retract the deadbolt completely using the deadbolt thumb-turn. (See illustration 23.)

Press the Exit Button. Two shorts beeps will sound. (See illustration 24.) You have 8 seconds to step outside and lock the deadbolt after the 2 beeps. If you take longer than 8 seconds, press the Exit Button again before closing the door to reactivate the security ring for another 8 seconds.

Step outside and close the door.

Rotate the security ring toward the edge of the door until you feel the deadbolt extend into the locked position. (See illustration 25.)

If you take longer than 8 seconds, and have already closed the door, you can activate the Security Ring by entering your code into the lockset. When the flashing "U" appears rotate the Security Ring to throw the bolt.

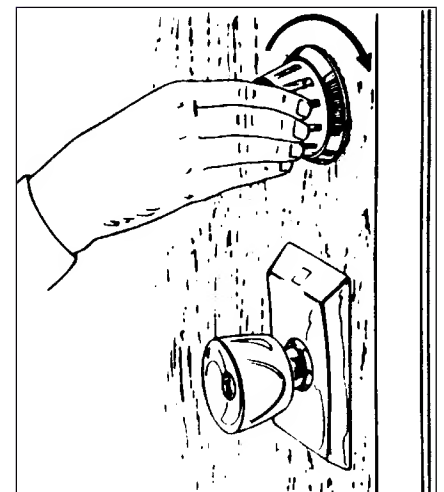
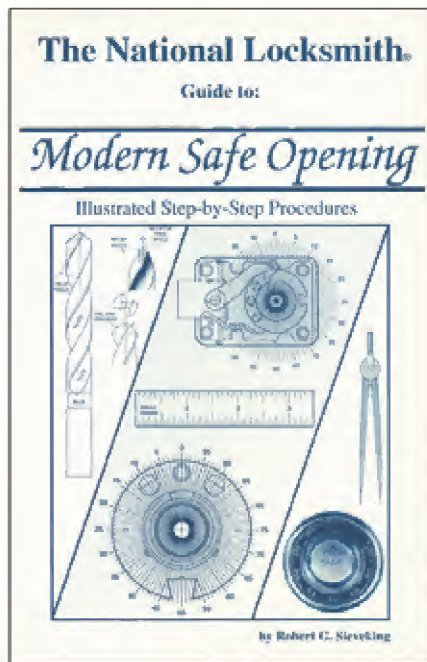


Illustration 25.

Modern Safe Opening



This book is a step-by-step How-To course in safe penetration. Opening safes is one of the most profitable aspects of the locksmithing business.

CLICK HERE TO LEARN MORE



#MSO - 1

Unlocking the Deadbolt

With a Key:

You may unlock the deadbolt with a key like any standard deadbolt.

Without a Key:

Enter a correct code in the (lower) lockset. A flashing "U" will appear. You will hear two short beep tones to remind you the deadbolt is ready to be unlocked. (See illustration 26.)

You must first unlock the deadbolt (before turning the door knob) by rotating the Security Ring away from the edge of the door until you hear and feel a firm stop. (See illustration 27.)

Now open the door by turning the door knob.

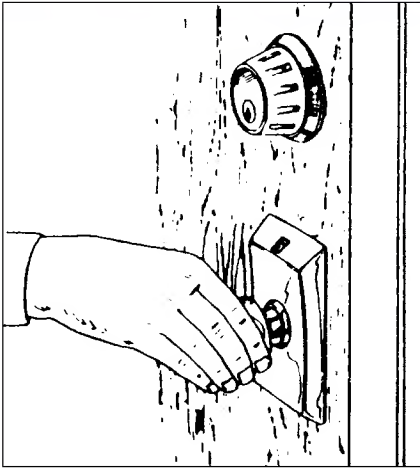


Illustration 26.

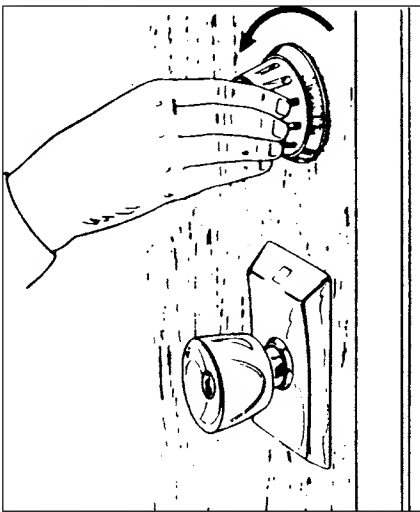


Illustration 27.

Note: From the time the flashing "U" appears, you have 8 seconds to unlock the deadbolt and 10 seconds to open the lockset.

Low Battery Indicator - Eight Beeps

As a general rule, a fresh alkaline battery should last more than a year. The deadbolt will warn you when the battery is getting low by beeping eight times instead of two times whenever you press the Exit Button or enter a correct code.

After you first hear the 8 beeps, you will still be able to operate the deadbolt for about 3 months. As soon as the eight beeps are heard, we suggest you change the battery.

Restoring the Lockset Codes

Factory Default Codes:

The lockset comes with pre-programmed (default) factory codes. The default personal code is 3-1-3. The

default alternate code is 2-0-2. To restore the factory codes, remove one of the four AAA batteries for at least 10 seconds. During this wait period, press and hold in the Code Reset Button. Reinstall the battery. The lockset will beep two times and the display will flash two digits. The personal code will be reset to 3-1-3 and the alternate code reset to 2-0-2.

You may choose any 2, 3, or 4 digit combination for your own access codes.

Examples of valid codes:

Two digits: 7-5, 3-3, 04, etc.

Three digits: 2-4-5, 8-7-7, etc.

Four digits: 3-4-4-6, 5-6-7-6, etc.

We recommend choosing 3 or 4 digit codes for better security.

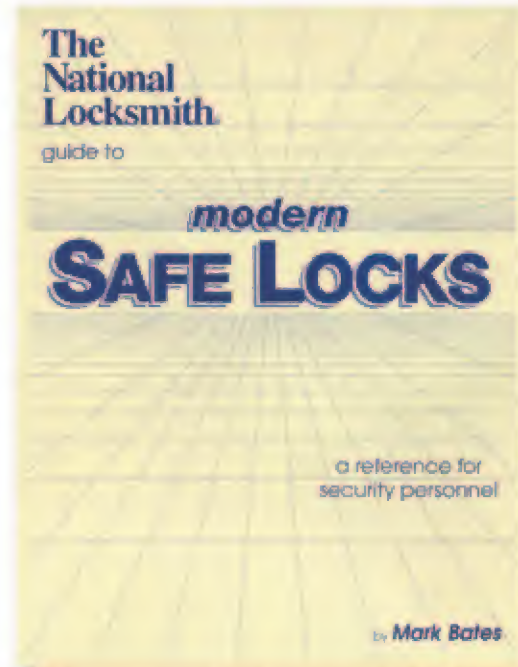
Changing Codes and Display Speed

Changing the codes and display speed takes three steps:

1. Changing the personal code.
2. Changing the alternate code.
3. Changing the display speed.

If you start by changing the personal code, you must go through changing the alternate code and finally

Modern Safe Locks



You always wanted to make money
servicing safes?

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#MSL - 1

through changing the display speed. To change the alternate code without changing the personal code the lock has to be in the alternate mode.

If you start by changing the alternate code, you will still need to complete changing the display speed to complete the sequence. You must exit the sequence, even if no changes are made, for the lock to operate properly.

Before Setting

Lock knob by placing the turn button in a horizontal position-like any standard key in knob lock. (See illustration 28.)

Remove battery cover by holding the bottom end and sliding up towards the knob. (See illustration 29.)

Setting the Personal Code:

Press the Code Reset Button (see illustration 30). The lock will beep two times and the display will begin flashing a "-".

While the bar is flashing, enter the

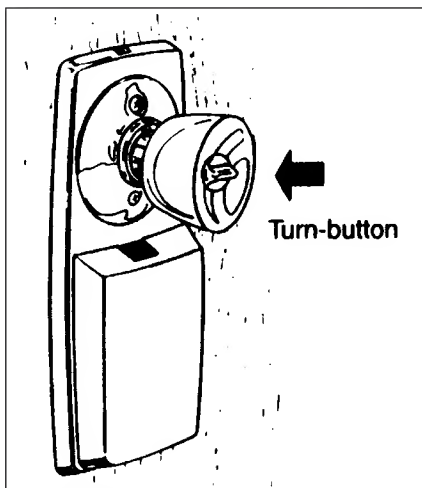


Illustration 28.

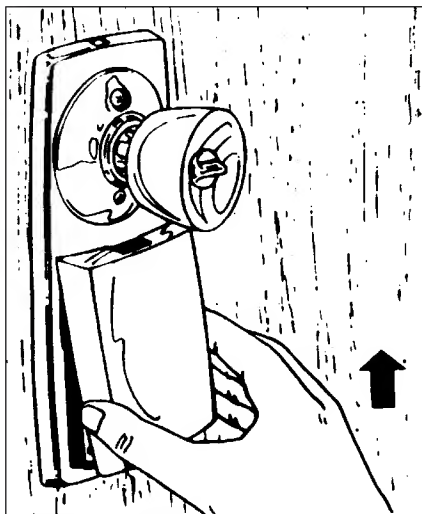


Illustration 29.

personal code. The display will show a flashing "U". While the "U" is flashing, press the Code Reset Button again.

The lock will display a "P" then play back the current personal code.

After playing back the personal code, the display will show a flashing "P". Enter a new personal code.

Release the knob after entering all the new code digits. The lock will play back your new code then display a flashing "P".

If you wish to change the code, simply enter another personal code. When you are satisfied with the new code, press the Code Reset Button and the lock will display an "A" and play back the current alternate code.

Setting the Alternate Code:

After the lock displays an "A" and plays back the alternate code, the "A" will begin to flash, enter a new alternate code.

After entering all the new code digits, release the knob and the lock will play back your new code and display a flashing "A". If you wish to change the code, simply enter another alternate code.

When you are satisfied with the new code, press the Code Reset Button. A number will flash in the display (usually a "3").

You have now started the display speed sequence.

Changing the Display Speed:

The single digit flashing shows the display speed. 0 (very slow) to 9 (very fast).

Turn the knob to a higher number to increase the display speed and a lower number for a reduced display speed.

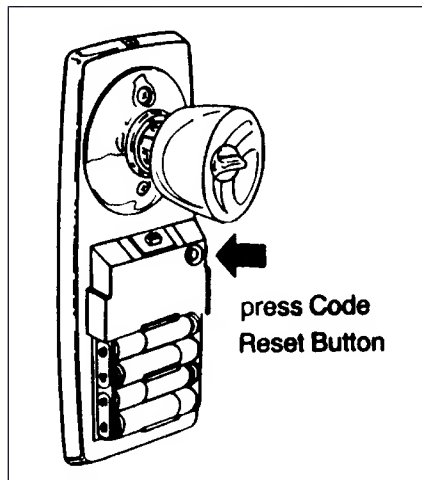


Illustration 30.

When you are satisfied with the new speed, press the Code Reset Button. This step completes the code changing procedure.

Changing Only the Alternate Code

The alternate code must be active (decimal point showing the lower right hand corner of the display). If not see instructions on how to switch the alternate code on or off.

Press the Code Reset Button. The lock will beep two times and the display will begin flashing a "-".

While the "-" is flashing, enter the current alternate code. The display will show a flashing "U".

While the "U" is flashing, press the Code Reset Button again.

The "A" will continue to flash. Enter your new alternate code. After entering all the digits of the new code, release the knob and wait. The display will play back your new code and begin flashing an "A".

If you wish to change the code, simply enter another alternate code.

When you are satisfied with the new code, press the Code Reset Button to exit changing the alternate code. The display at this point will show a single number (usually "3") indicating the display speed. 0 (very slow) to 9 (very fast).

Turn the knob to a higher number to increase the display speed and a lower number to reduce the display speed.

When you are satisfied with the new speed, press the Code Reset Button to exit changing the display speed.

Example

The following is a step-by-step description changing the personal code from the factory 3-1-3 to 4-8-5.

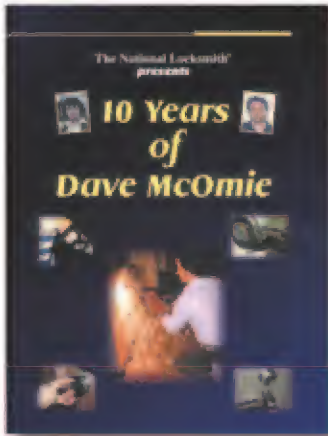
Lock the knob by placing the inside turn button in a horizontal position. This also limits the rotational travel of the outside knob such that the display lights up when turned full left or full right.

Remove the battery cover by holding the bottom end and sliding up towards the knob. This will expose the batteries and the Code Reset Button.

Press and release the Code Reset Button. The lock will keep two lines and the display will begin flashing a "-" (bar).

Continued on page 62

10 Years of Dave McOmie



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#DM - 10

GM Steering Column Course



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#GM - 2

While the bar is flashing, enter the existing personal code. The display will show a flashing “U”. While the “U” is flashing, press and release the Code Reset Button again.

The lock will display a “P” then play back the current personal code. If you have never changed the pre-installed factory personal code, then the play back will show “P”, then “3”, “!”, And “3”.

After confirming the personal code by playing it back, the display will show a flashing “P” once more. This is the signal to enter a new personal code.

Rotate the outside knob to the right until it stops and hold it there. Wait until the display counts up “0”, “1”, “2”, “3”, “4”. Quickly, before the display turns off, rotate the outer knob to the left until it stops. Watch the display count down to the eight: “0”, “9”, “8”. Turn the outside knob to the right again and watch the display count up to five: “0”, “1”, “2”, “3”, “4”, and “5”. After this last digit is entered, release the knob and wait for the display to play back and confirm your new code, then display a flashing “P”.

Press and release the Code Reset Button. The display will show a flashing “A” and play back the current alternate code (2-0-2) then display a flashing “A” again. Since we are only changing the personal code, press the Code Reset Button to exit the alternate code change and a single digit number will appear in the display (usually a “3”). This signals the start of the display speed change sequences.

Press the Code Reset Button one last time to exit.

IntelLock Digital Deadbolt (2000 Series)

The stand alone 2000 series digital deadbolt is different in appearance than the one used in the combination lockset and deadbolt 3000 series. (See *illustration 31.*) Installation is slightly different, however it isn't anything any locksmith can't handle. (See *illustration 32.*)

As for programming the 2000 series deadbolt, it is almost identical to the 3000 series previously covered.

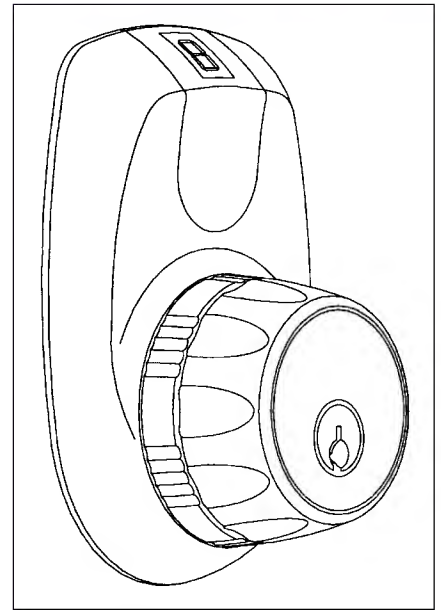


Illustration 31.

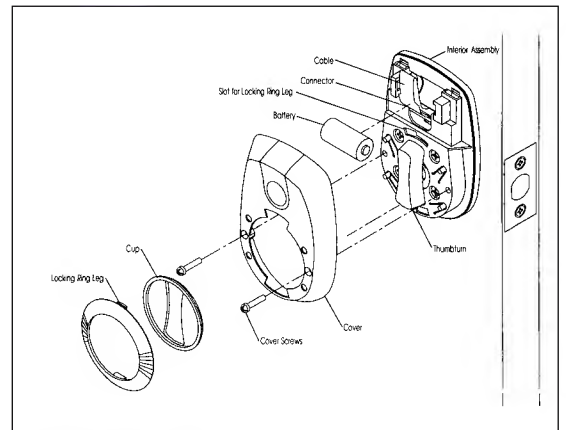


Illustration 32.

Conclusion

Given that there are many opportunities to sell and install keyless remote entry locks, what should a locksmith look for in choosing a brand? Obviously, attractiveness of design, reliability and sound engineering are key. An ANSI Grade 2 rating is ideal for residences, condos, apartments and light commercial applications. A lock, such as the IntelLock, which rates at Grade 2 or above in some specifications, and requires no hard wiring for installation, is ideal. Easy re-keying is also a consideration, as is battery life. In addition, the IntelLock offers both easy rekeying and a 3-year battery life under normal usage. The IntelLock high tech locks are great for retrofits, as they work in standard bored-hole installations.

For more information on IntelLock products call: (510) 225-0300, or circle 293 on Rapid Reply. **TNL**

A & B Safes



A & B's premium line of gun safes are available in four sizes with either full or split interiors. These units are equipped to hold from six to thirty-nine long guns in addition to ample excess storage space. Other related items include a portable handgun box plus many different sizes of safe chests for the storage of hand-guns and ammunition. All safes and chests are manufactured to the highest quality standards and come equipped UL approved combination locks or electronic digital locks.

Circle 390 on Rapid Reply

Cannon Safes are independently fire certified at 1500 degrees for 45 minutes. They are the only torch-resistant gun safe on the market featuring a UL rated ball bearing hard plate backed by Cannon's infamous 85 R.C. hardplate; A composite door measuring 1 9/16-inch thick; Full length hinge rated to support 5,000 lbs. (Pat. Pending); Patented wall construction with torch resistant plate prevents door torching and the Quad wall body construction is the strongest construction in the industry

All Cannon Ultimate Series feature Group 1 manipulation proof lock standard; 2 super relockers; Top, bottom, and side locking bolts; a Lifetime Fire and attempted break-in policy; Heat activated expandable door seal; High gloss chip resistant paint; and Detent locking bolts.

Circle 391 on Rapid Reply



Fort Knox Security

It has been tradition for Fort Knox to lead the industry in innovation and technical improvement. This year Fort Knox Security Products has announced the measure of fire protection that other gun safes will be compared. For some time the industry standard has been up to 1200 degrees in 30 minutes. Fort Knox has nearly doubled this protection (1450 degrees in 50 minutes) and included it as a standard feature on all of its safes at no additional cost.

What's more spectacular is the introduction of the Reinforced Fire Door. The new Reinforced Fire Door adds a layer of fire protection to wither the 3/8-inch or 1/4-inch solid steel plate, then reinforces the door with an additional 10 gauge steel for added security (30% thicker steel than other composite type doors). This takes the standard fire protection to new heights with temperatures to 1680 degrees over 90 minutes. The Reinforced Fire Door is standard on the Vault Door as well as the Yeager and Titan series. It is available on all other Fort Knox safes as an option.

Circle 392 on Rapid Reply



Gun & Media Safes

It wasn't that long ago when a person in the market for a safe needed to know only three things. They needed to know whether a money chest or fire safe was required and what size was needed! Today that is no longer the case. There are numerous choices, options, and specifications available, requiring a greater degree of knowledge on the purchasers part to assure the correct safe is chosen for the job.

Although safes — and the variety there of — have evolved enormously over the years, the general population has little knowledge of the true meaning of the various classifications. Gun and media safes are a prime example. Both types have more variations in size, style, UL ratings and specific purposes than most would ever imagine. Because of this, there is no one better suited to educate the public and provide a customer with the proper safe for their needs than you.

Gardall Safe Media Protection

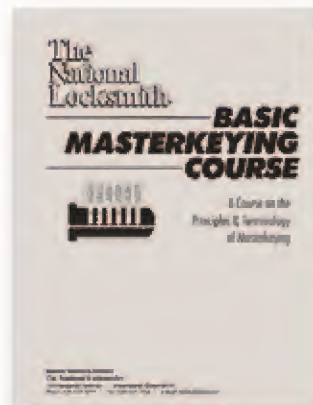
Gardall Safe is proud to offer their highest rated Burglary Fire safe with the Media option. Enjoy the security of a burglary rated safe along with the outstanding protection offered by the Gardall one-hour fire label. In addition, an internal compartment can be installed for additional protection for all of your electronic media. You can be sure that all of your important valuable, as well as any of your business documents will be protected. With their electronic media protection your picture albums, computer disks, and videotapes can be safe from burglary and fire. Additional options include electronic locks for fast reliable opening. Business's can benefit from multiple user codes, and fast and easy changing of codes.

Circle 393 on Rapid Reply

Continued on page 68



Basic Masterkeying Course



13 Lesson
450 page course

The Basic Masterkeying course is designed for the locksmith who wishes to become proficient in Basic Masterkeying.

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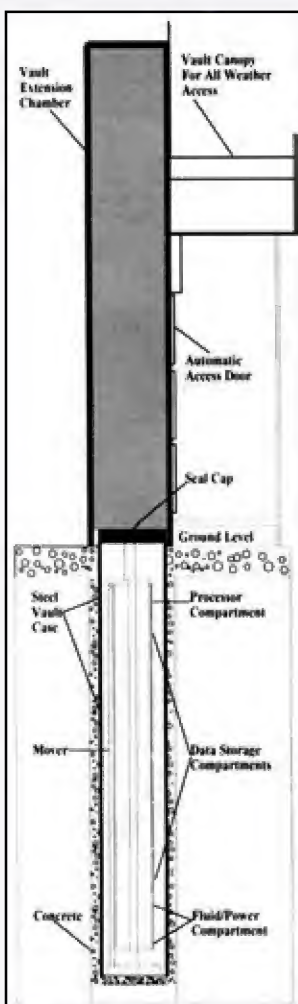


#MK - 1

Continued from page 65

SDS Vaults

The SDS Vault is a patented underground storage unit, measuring 10 feet long by approximately 18 x 16 x 13 inches, that rises above ground, like an elevator, for easy access to its SIX 17x15x13 inch compartments. Each compartment is accessed with its own PIN and can be outfitted with as many as 12 safe deposit boxes, each individually secured by a MED-ECO lock. Redundant critical systems are standard for unparalleled reliability. The 1-inch steel cap, steel bottom, steel and cement walls, 12 feet underground, and the above ground housing with security door, make the SDS Vault flood and fire proof, and virtually earthquake and burglar proof.



The above ground access makes it convenient, the below ground storage makes it one of the safest vaults on the market. It can be installed in an existing building or outside with the optional covered canopy. Leasing is also available.

For more information visit the home page at www.sdsvaults.com or call 208-746-2188 for a brochure and leasing information.

In the event of a widespread disaster such as earthquake or flooding, a courier service will be swamped with calls for access and delivery and may not be able to get to your data in a timely manner. During the same disaster those with SDS Vaults will be able to get to their data when they want.

Circle 394 on Rapid Reply

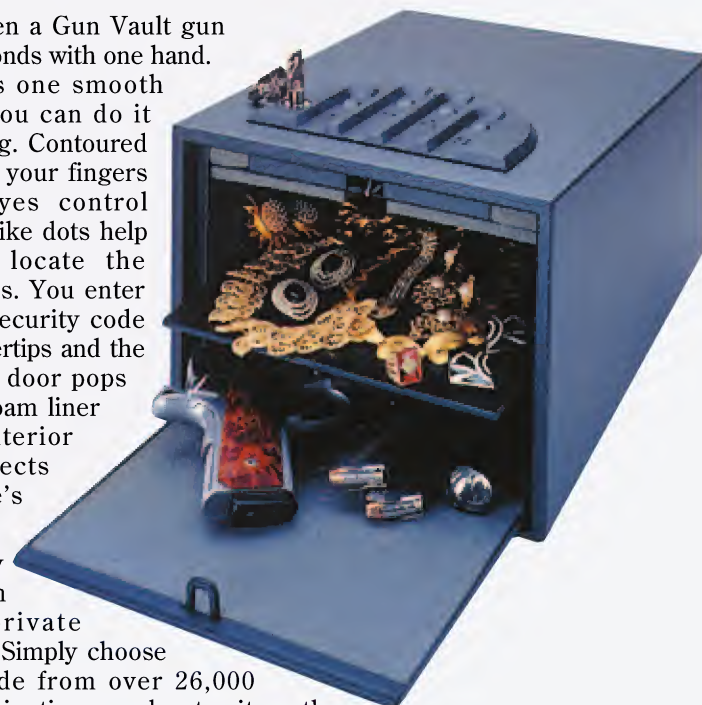
Gun Vault Gun Safes

You can open a Gun Vault gun safe in seconds with one hand. All it takes is one smooth motion and you can do it without looking. Contoured grooves guide your fingers to the No-Eyes control panel. Braille like dots help you quickly locate the correct buttons. You enter your private security code with your fingertips and the spring loaded door pops open. A soft foam liner inside all interior surfaces protects your gun safe's contents.

It is easy to program with your private security code. Simply choose an access code from over 26,000 possible combinations, and enter it on the control panel. Open the Gun Vault by again entering your security code. You can always use the backup key if you forget your code.

Battery power provides maximum security and easy portability. A Gun Vault gun safe mounts almost anywhere in any direction.

Circle 395 on Rapid Reply



Schwab Corp. Media Cabinets

When it comes to safeguarding on-site, vital computer data against the devastating effects of fire, Schwab Corp.'s UL classified 125 degree-1 hour media cabinets are unbeatable. While paper records can withstand temperatures up to 420 degrees Fahrenheit, computer media is damaged beyond use by temperatures above 125 degrees Fahrenheit and 80 percent humidity. In the event of a fire, Schwab media cabinets are guaranteed to maintain internal temperatures and humidity below these critical levels.

Schwab is so confident in each of their cabinets' abilities to protect its contents that a \$100,000 covered contents guarantee comes with every one. While business fires can be ugly, protecting your business does not have to be. Not only are Schwab cabinets designed to be practical and effective, but they also bear an attractive, contemporary style to enhance any office decor.

Circle 396 on Rapid Reply



Sentry Safes

The Sentry Group, the leading manufacturer of fire-resistant safes and other storage units, offers several products designed specifically to safeguard those valuable media from both dangers. Each is Underwriters Laboratories (UL) tested to ensure that even during a raging fire, the interior temperature remains below 125 degrees F. and humidity below 80 percent—both levels proven safe for delicate electronic media.

For instance, the Fire-Safe media chest is compact enough to slip into a desk or file drawer or credenza, yet holds up to 60 3-1/2-inch diskettes, 30 5-1/4-inch diskettes, 20 3-1/2-inch data cartridges, or 4 5 and 6-inch data cartridges. Computer users can remove the convenient pull-out disk/cartridge organizer for everyday desktop use, then when finished, lock the media away in the chest, knowing it is safe from heat, humidity, and even electromagnetic radiation (EMI).

For those with greater storage needs, the Fire-Safe media file offers the same UL-classified protection from heat, humidity and EMI; and its larger size enables computer users to store up to 120 3-1/2-inch diskettes.

Even more capacity is offered in the Fire-Safe media safe, a floor-standing, wheelable or bolt down unit made of heavy gauge steel construction and featuring a three-number combination lock and four live locking bolts for extra security.

Whether one keeps just a few business papers at home for occasional use, or operates a full-scale home-based business complete with hundreds of vital records, it is senseless to court disaster—especially when fire protection for those documents is so easy to obtain.

Circle 397 on Rapid Reply



Victor Firemaster Media Safe

This Victor Firemaster® Media Safe sets a new standard for convenient storage and fire protection of magnetic files.

Underwriter Laboratory has classified this safe as 125 degrees—one hour.

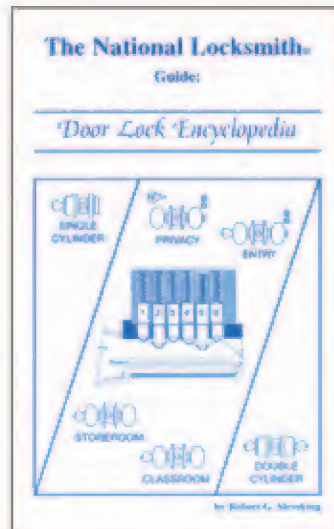
Advanced insulated materials allow a compact, portable, low cost media safe that offers each person their own free standing, mobile file next to or under the desk with personal computer.

Circle 398 on Rapid Reply



TNL

Door Lock Encyclopedia



The ability to remove a lock from a door, disassemble the mechanism, and remove the lock cylinder for service is not always a simple straight-forward task.

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#DLE

DIAMONDS ARE A SAFECRACKER'S BEST FRIEND



by
Dale W. Libby, CMS

ixes, carbide chip and wafer included hardplate, special tools and skills are necessary.

The tools include a fixed and hand controlled hardplate drill rig, a good drill motor, carbide drills, and scopes, scopes, scopes. That is until recently. With the introduction of incredibly hard exotic and wondrous anti-penetration materials, the safecracker must use the proper weapons and ammunition. The new weapons include diamond core drills which are nothing more than diamond encrusted hollow rods that cut or abrade through the most exacting and exotic substances.

The new skills that are needed are proper penetration techniques with the new tools. It is not automatic, even with the fixed drill plate mini-drill rig. My first hole took 2 diamond drill bits. There is a technique, just like for hardplate drills. There are many considerations to make the hole easily with the least number of dead

It is hard enough to penetrate hardplate. When one meets extremely hard, diabolical mat-

drill bits or core drills. This procedure is easily learned. The secret is patience. Real Patience.

In *Photograph 1*, we see an edge of "Infusium." This is the golden colored carbide flake hardplate that eats carbide drill bits. Yes, this Diebold GSA type of hardplate will eventually yield to many carbide drill bits, but only one diamond core drill is needed.

Although time consuming, the diamond core is faster than the 20 or so carbide bits you will go through. Frustration factor is less, and more money can be charged.

If too much pressure is used when drilling with the diamond core bits, they will mushroom. This can be seen in *Photograph 2*. These two bits are from my first diamond core drill



1. Cross section of Infusium, a modern day barrier material with carbide flakes and golden color.



2. Tips of two diamond core drills that have mushroomed due to too much pressure and improper technique.

job on an Allied Gary money chest with Shrayder Maxalloy. As opposed to drilling with carbide where pressure is needed to penetrate, cut, and burn the hardplate, smooth even light pressure is required when



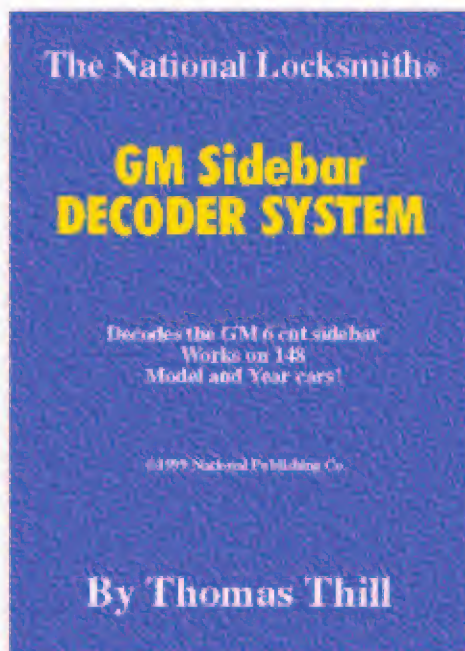
3. Diamond core drill and plug drill over container of lubricant.

using the diamond core drill. Hardware first, technique second.

I use StrongArm drill bits, core drills a Mini-Drill Rig and associated parts. There are two sizes of diamond core bits, the 1/4 and 5/16-inch sizes. I prefer the 1/4-inch size in most applications. *Photograph 3*, shows some components I use. A 1/4 inch diamond core is on the left, a lubricant

container and to the right is a plug cutter that can be used to remove the inner nub of hardplate. The plastic tube at the top contains the hollow tube diamond core bit and the instructions. The plug cutter is optional.

Speaking of instructions, I will quote freely from the included directions and make personal observations and comments as I go along.



GM Sidebar Lock Decoder System

Tom Thill, the author of a new book, has invented an amazing new way to make keys for six cut GM Sidebar Locks.

[CLICK HERE TO LEARN MORE](#)

#TT - 1

4. 3/8" drill
with speed
control
trigger
button.



DIAMOND CORE DRILLING:

The StrongArm Diamond Core drill is designed to cut through carbide chip barriers that break the tips off carbide tipped drills. The Diamond Core is best suited for drilling with a fixed type rig, such as the Mini-Rig.

Step 1: Prepare the hole by drilling with heavy pressure and high RPM with a carbide tipped drill. Do not be afraid to crush the drill tip in the hole. This smoothes the matrix surface and

preserves the diamonds on the drill to begin cutting.

Step 2: Begin core drilling in the range of 500 RPM with light feed pressure to seat the core drill. After about one minute, you can increase the RPM up to, but not to exceed, 1000 RPM. Use light pressure on the bit, just enough too lightly snug the bit against the plate. Listen and try to hear your drill motor slow down very slightly, and when the RPM picks up in a few seconds, lightly snug it down very slightly again. Continue to snug

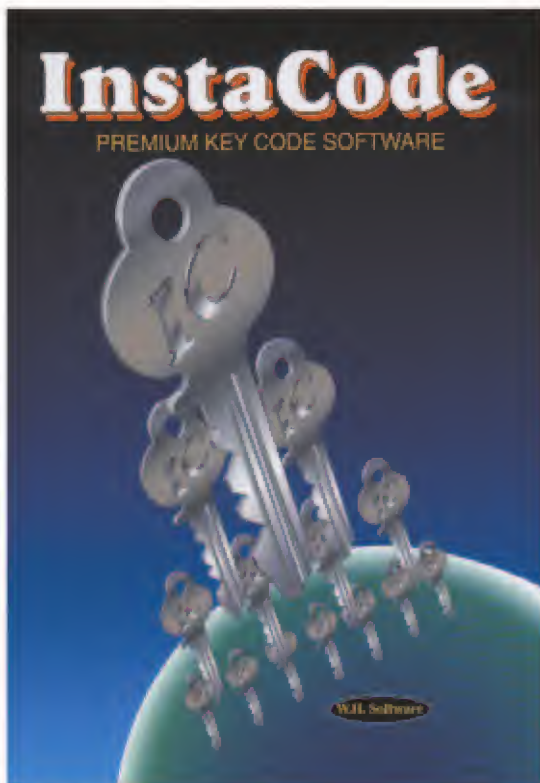
and tighten every few seconds, and repeat. Slowly, ever so slowly. Eventually you will get through.

If the bit feels like it is bogging down or snagging, you may have reached the backing plate of soft steel, the hardened steel casting, or the lock material itself. When the drill is not cutting, the rig handle will not advance freely and it will tighten.

Now you must remove the carbide core using your choice of the three methods listed below and continue drilling with a carbide bit.

I bought a special drill just for using the diamond hole saw. It cost about \$30.00 and has some interesting features. It is a 3/8-inch drill with reversing motor. On the back of the drill is a level bubble. The really important part of the drill is that it is variable speed with locking trigger control. You can dial in any speed (between 0 to 2250 RPM) and lock it with the trigger lock. The drill motor can be seen in *Photograph 4*. It is a Skill, model 6220 keyless chuck.

This drill is not strong enough for general locksmith and safecracking



#IC - 2001

InstaCode

Your total code and code machine management program.



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uses, but does well where light duty drilling is needed. The exact RPM's cannot be determined except by listening and guessing, but there is enough of a gap that can be neutralized by good steady slow technique.

After penetrating the hardplate, the inner nub must be removed. Here are a few options. When you are sure you are through the carbide matrix, cut the soft steel backing with a Core Cutter the same size as your diamond drill. Remove the core with a magnet or forceps.

Break off the core in hardened casting or steel by punching with a pointed, or angle ground punch, or a hardened concrete nail ground to fit into the side of the core. Continue with method #3 to remove any core residue.

Attack the core with carbide drill bits at high RPM and heavy pressure on the drill rig. Used or dull drill bits are fine for this method.

Another important part of core drilling is using the lubricant included with the drill bit. About every 10 - 15 minutes, the core drill should be removed from the fixed rig, inspected, and lubed. This is accomplished by pressing the lube in the hollow center

of the core drill. There should be about 1 inch of lubricant in the end of the bit.

After removing the core drill, I brush the end of the diamond bit with a fine brass welding metal brush, a tooth brush, or some fine emery paper. The purpose of this is to remove material that clogs the diamond cutting surface. It takes only a minute, but improves the cutting prodigiously.

The secret technique is patience, snug, take up slack, lube, clean the tip, etc. After removing the drill bit for inspection, you might want to look into the hole to observe your

progress. Expect to see black greasy residue made up of carbide powder and lubricant.

I poke the old lubricant out of the drill before lubing it. It is made of chips. The lubricant also acts as a heat sink for the diamond core. *Photograph 5, shows the Mini-Rig with the core bit.*

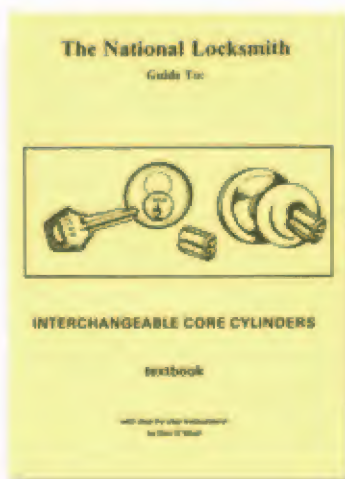
Sometimes, as with a Knight Safe, side drilling is a must, but there is always a chance you will have to drill from the front. I have been there. The next Knight penetration that must be done from the front will be diamond cored.

Drill and Prosper! **TNL**



5. Diamond drill in Mini-Rig. Fixed rig should be used when using diamond core drills.

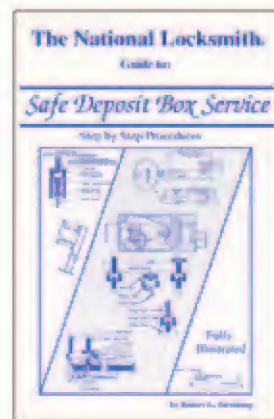
Interchangeable Core Cylinders



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#ICB - 1

Safe Deposit Box Service



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#SDBS - 1

Door Closer Helpful Hints

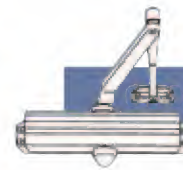


We asked a few of the leading door closer manufacturers to give us their advice on choosing the proper closer for the application, terminology, installation tips and troubleshooting tips. The following is a list of helpful tips by Norton, Ryobi and Sargent which are recommended to help reduce potential problems when selecting, installing or maintaining a closer. Some information given is specific to a given manufacturer's closer, however, most information is generic in nature and is applicable to any manufacturer's closer.

Illustration 1

EXPECTED FREQUENCY OF DOOR OPERATIONS

APPLICATION	DAILY	YEARLY
Large department store entrance	5,000	1,500,000
Large office building entrance	4,000	1,200,000
Theater entrance	1,000	450,000
School entrance	1,250	225,000
School restroom door	1,250	225,000
Store or bank entrance	500	150,000
Office building restroom door	400	118,000
School corridor door	80	15,000
Office building corridor door	75	22,000
Store restroom door	60	18,000
Residential entrance door	40	15,000
Residential restroom door	25	9,000
Residential hallway door	10	3,600
Residential closet door	6	2,200



NORTON

Questions To Ask Before Buying A Door Closer

- ✓ How much traffic will this door get?
(See illustration 1.)
- ✓ How large is the door?
- ✓ How will the closer be mounted?
 1. Regular Arm. (See illustration 2.)
 2. Top Jamb Arm. (See illustration 3.)
 3. Parallel Arm. (See illustration 4.)
- ✓ Does this opening need to comply to ADA? (Remember, fire doors may not need to comply to ADA, consult local authority.)
- ✓ Is the closer selected aesthetically appealing to the owner?

Illustration 2

Regular Arm

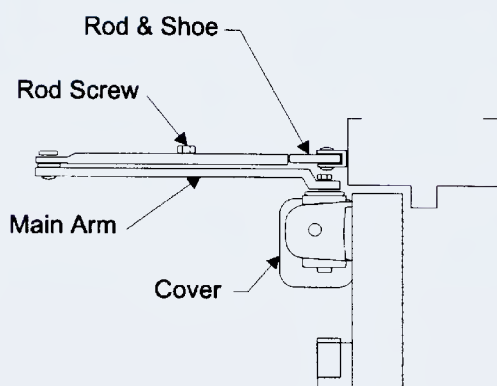


Illustration 3

Top Jamb Arm

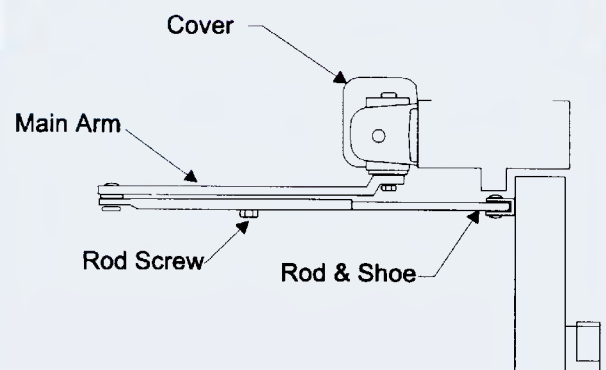


Illustration 4

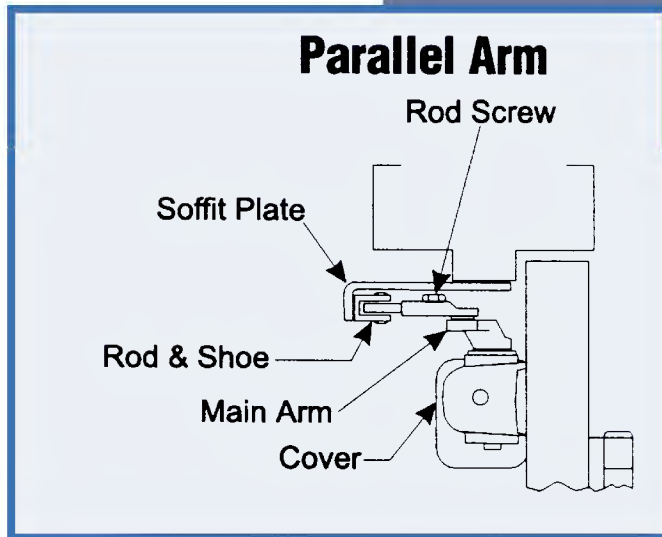
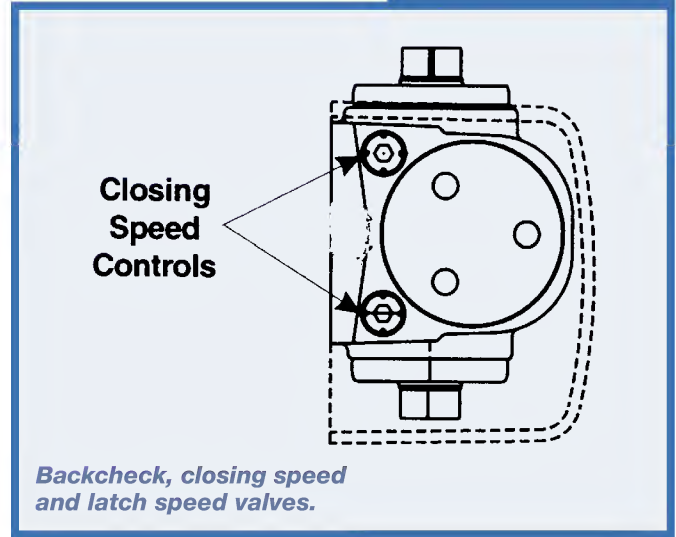


Illustration 5



Before You Install

- ✓ Keep mounting instructions packed with the closer.
- ✓ Does closer package have all necessary mounting screws and plates?
- ✓ Is the frame and door compatible to the method of mounting selected?
- ✓ Prepare door and frame to the template furnished with the product.

After You Install

- ✓ Most closers are shipped with valves closed. Make adjustments to backcheck, closing speed and latch speed. (See illustration 5.)
- ✓ If closer has an adjustable spring, size the closer to the opening force desired.
- ✓ Remember that the less force there is to open a door, there will be far less force used to close it.

- ✓ On exterior doors do not use barrier free closers. They will not close and latch properly.
- ✓ When adjusted correctly, you will not notice the force of the closer or see dramatic door movements.

Trouble Shooting

- ✓ Oil around valves usually indicates abuse. (Backcheck or delayed action set too tight and someone has forced the door through the cycle.)

Safe Opening Volumes 1-5



These are the classic safe books you will need to open most any safe easily and professionally.

- Volume 1 - Modern Safes
- Volume 2 - Modern Safes
- Volume 3 - Antique Safes
- Volume 4 - Antique Safes
- Volume 5 - Very Recent Safes

[CLICK HERE TO LEARN MORE](#)

#SO - 1, SO - 2, SO - 3, SO - 4, SO - 5



- ✓ Oil leaking around the pinion (spindle) can be an O ring problem. Leaking closers should be replaced.
- ✓ Door stands ajar at initial installation. Arm indexing incorrect, not pre-loaded. See installation instructions.
- ✓ Door stands ajar after initial installation. Building stack pressure. Increase spring tension.

In many instances this cannot be overcome.

Illustration 6, is a Norton door closer selection chart including model numbers.

For more information on Norton door closers call: 800-483-1951.

Circle 401 on Rapid Reply.

Illustration 6

DOOR CLOSER SELECTION CHART
NORTON MODEL NUMBERS

USAGE	9300	1700	1600	8000	7000
Product Class	Light Commercial	Medium Commercial	Heavy Commercial	Heavy Architectural	Heavy Architectural
Annual Cycles	<70,000	<100,000	>100,000	>100,000	>100,000
Location	Interior/Exterior	Interior	Interior/Exterior	Interior/Exterior	Interior/Exterior
Full Cover	No	Option	Option	Option	Yes
UL Listed	Yes	Yes	Yes	Yes	Yes
Tri-Pack (Reg. PA, TJ)	Yes	No	Yes	Yes	Yes
Full Accessories	No	No	Yes	Yes	Yes
Hold Open Arms	Yes	Yes	Yes	Yes	Yes
Backcheck	Yes	Option	Yes	Option	Yes
Delayed Action	No	No	Yes	Yes	Yes
Closing Speed Valves	1	2	2	2	2
Spring Sizes	2 thru 5	2 thru 4	BF 1 thru 4 Regular 2 thru 6	BF 1 thru 4 Regular 2 thru 6	BF 1 thru 4 Regular 2 thru 6
Adjustable Spring	No	No	Option	Option	Option
ANSI Grade	3	2	1	1	1
ADA Compliant	No	No	Yes	Yes	Yes
Maximum Door Width	52	42	52	52	52
Warranty	5 Years	5 Years	10 Years	10 Years	10 Years

Norton door closer selection chart.



RYOBI

D-3550/D-3551 Features Full Hydraulic Checking

- ✓ Controls the door through the entire opening and closing cycle by providing adjustable backcheck upon opening and adjustable general and latch speeds through the closing cycle. (See illustration 7.)

- (1) Opening swing, no checking.
- (2) Backcheck.
- (3) General speed.
- (4) Latch speed.

Adjustable Spring Power

- ✓ Allows for variable spring tension adjustments. For example: a closer may be adjustable from a size 2 spring power through a size 6. (See illustration 8.)

Non-Handed

- ✓ Can be used on both RH and LH doors for both push side and pull side mounting.



15 Minute Safe Opening

This book deals exclusively with round head lift out doors. Shows five ways to open a Major; three ways to find the Dog Pin on a Major; four ways to open a Star; four ways to open a LaGard style round head.

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#JJ - 1

Continued from page 76

Illustration 7

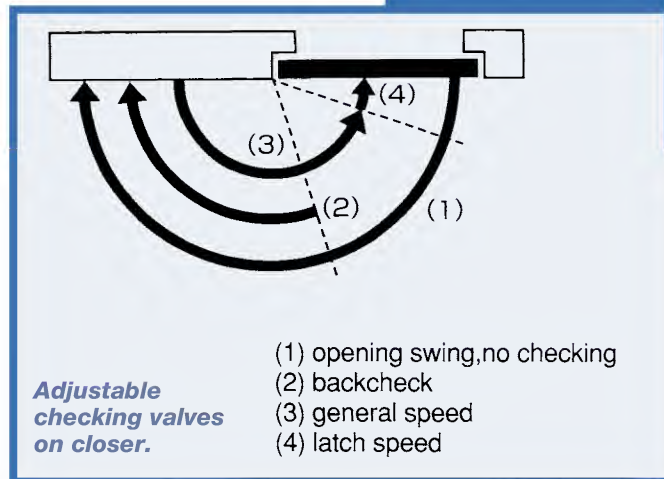
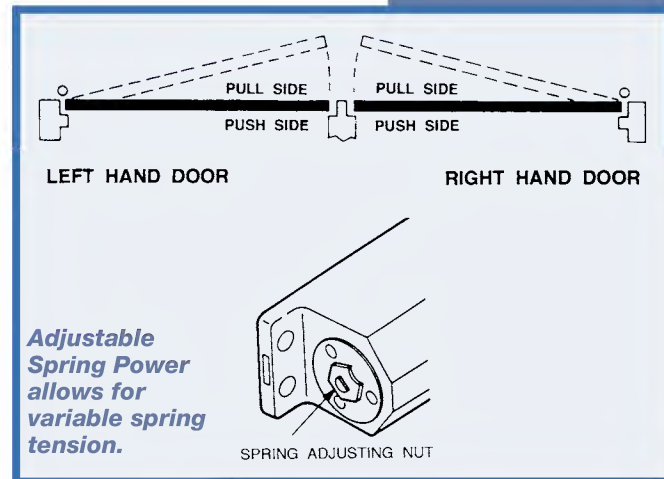


Illustration 8



Non-Critical Regulation

- ✓ The separate adjustments for backcheck, general and latch speeds are equipped with non-critical "V-slot" regulating valves which allow for fine tuning the closing and latching speeds as well as the backcheck intensity.

Delayed Action

- ✓ A separate hydraulic valve adjustment to delay the closing speed from 180 to 70 degrees of door opening range. (See illustration 9.)

Illustration 9

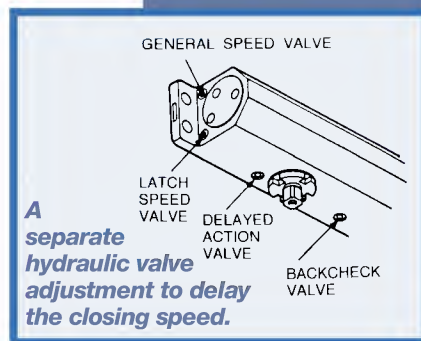
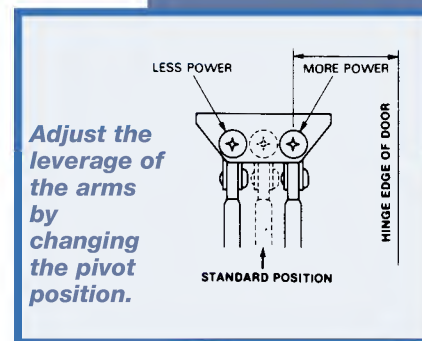


Illustration 10



Guide to Motorcycles

For years locksmiths have begged for a comprehensive service manual on motorcycles and its finally here!

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#MOT - 2

February 1999 • 85

All Season Fluid

- ✓ All season fluid eliminates the need for seasonal adjustment.

Closing Power Adjustment

- ✓ Allows for variable closing spring adjustments.

Latching Power Adjustment

- ✓ The provision to adjust the leverage of the arms by changing the pivot position of the arm in the foot. (See illustration 10.)

Delayed Action

- ✓ Permits the door to close very slowly through the delayed action cycle range.

To order the proper RYOBI door closer, see the specification chart in illustration 11.

For more information on RYOBI door closers call: 800-525-2579.

Circle 402 on Rapid Reply.



Important Distinctions in a Grade 1 Closer

The door closer is the real work horse of a doorway. Not only does it do just what its name implies, close the door, but it also plays an important role in controlling the door as it is being opened. If the proper door closer is selected, and it is installed and adjusted correctly, its operation usually goes unnoticed for the life of the opening. However, if these criteria are not met, the door will not be controlled properly and it could lead to problems with virtually every major component of the doorway.

Choosing a Grade 1 Closer

The selection of a high quality closer that exceeds Grade 1 is a critical step towards ensuring the longevity of your total opening. There are many different brands and grades of door closers on the market. Each of them has similar features, but not all of them are equal. Before choosing one of these closers, you must first assess your doorway situation.

Illustration 11

CLOSERS	
Add suffix: "DA" Delayed Action (optional)	ARM TYPE (add suffix) "L" - Long Rod Forearm (TJ only) "H" - Standard Hold Open "PH" - Parallel Hold Open "EDA" - Extra Duty Arm "H-EDA" - Hold Open Extra Duty Arm "S" - Extra Duty Arm with Stop "HS" - Extra Duty Arm with Hold Open and Stop "T" - Track Mount "HT" - Track Mount with Hold Open
Size: 0-size 2-6 with 15% adjustment 1-size 1-4	
Model No.	
D-3550DAH x AL x SN	
Fastener: "SN" Sex Nuts & Bolts "WMS" Wood and Machine Screws	
Finish: AL: Aluminum DKBRZ: Dark Bronze BRZ: Bronze BRS: Brass BLK: Black	
ACCESSORIES	
Example: 03503 DROP PLATE	

A RYOBI door closer specification chart.



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#SUB - 1,2,3,4,5,6

- ✓ Are you closing an interior or exterior door?
- ✓ Is the door a standard size, or is it wider, taller or heavy in weight?
- ✓ Are there any unusual wind or draft conditions?
- ✓ Does the opening need to be ADA compliant?
- ✓ Door handing is necessary to know for ordering the proper closer. *Illustration 12*, is a door handing diagram to help determine the handing of a door.

Features

Once you understand your needs, then you can begin to look at the features of the individual door closers. Most manufacturers offer Grade 1 closers in barrier-free (ADA) version. This type of closer is usually adjustable from a size 1 to a size 4, and will comply with ADA requirements on most standard size interior doors. The other version that is offered is usually adjustable from a size 3 to a size 6 or 7. In general, the higher the size number, the larger the door it will close. Keep in mind that non-ADA closers may not be able to meet ADA opening force requirements, and likewise, barrier-free closers may not have the power to close very large doors.

Proper closer body selection is an important first step.

Grade of Material

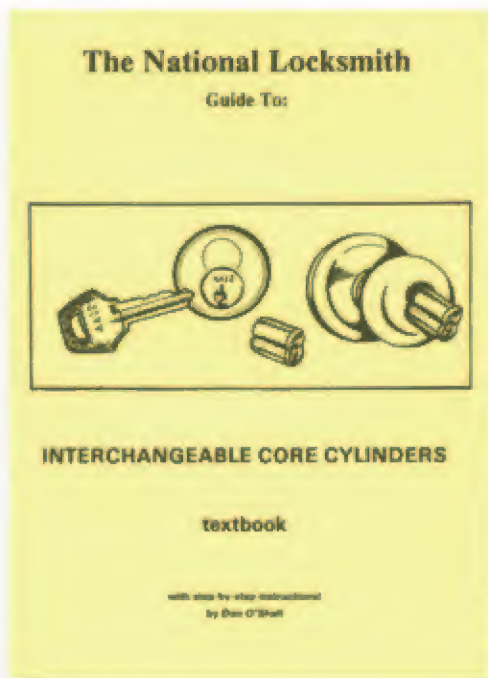
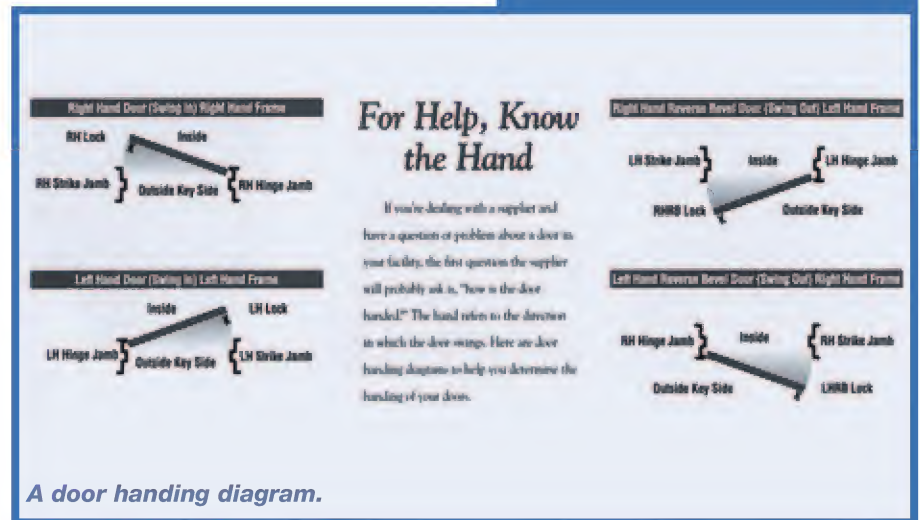
The next item to consider is that all door closer bodies are constructed of either cast iron or cast aluminum, and both are acceptable under Grade 1 standards. There are different grades of aluminum and iron, however, and this is what determines the better closer. A high quality aluminum closer will be formed from a higher grade aluminum

silicon alloy. Most aluminum closers on the market are R-10 alloy, but some are as high as R-15. In general, the higher the number, the better the quality and durability of the closer. A cast iron closer should be constructed of at least class 30 cast iron, again, to assure the proper strength required for long closer life.

Efficiency

Another important quality of a door closer is its efficiency. In order to meet Grade 1, a door closer must be at least

Illustration 12



Interchangeable Core Cylinders

Covers all this...

- Best/Falcon/Arrow/Eagle/(A2)
- Best A3
- Best A4
- Corbin X Removable Core
- Corbin Z Removable Core
- Russwin Removable Core
- Emhart System 70 Removable Core
- Sargent Removable Core
- Schlage, Yale, Lockwood
- Medeco Removable Core

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60 percent efficient. In other words, if it takes 10 pounds of force to open a door, the closer must be able to shut the door with at least 6 pounds of closing force. This becomes an important issue with barrier-free openings that are required to open with 5 pounds of force or less. A 60 percent efficient closer only has 3 pounds of force left to close that same door! Some door closers far exceed the Grade 1 requirements by more than 20 percent in regular arm application. In general, the greater the efficiency, the better the door closer will be able to handle most applications.

In order to meet Grade 1 requirements, a door closer must be able to cycle at least two million times. Some door closers exceed this requirement by two or three times.

Other Items to Consider When Selecting a Grade 1 Closer

- ✓ Spring Adjustment control should be a standard feature.
- ✓ Non critical backcheck, closing and latching adjustment valves standard. This feature requires more turning and is easier to adjust.
- ✓ Valves should be made of a temperature compensating material, and should be staked. This means the top few threads of the body valve part are distorted to prevent valves from being backed out.
- ✓ In general, the larger the diameter of the piston, the greater control you will have over the closers operation.
- ✓ There should be a separate pressure relief valve system to prevent the closer from being damaged by excess force.
- ✓ Consider whether you want a handed or a non-handed closer.

There are many items to consider when selecting a door closer, and the most important ones are listed above. The bottom line is to select a closer from a reputable manufacturer that exceeds ANSI Grade 1 requirements, and that meets and exceeds your requirements.

Minimum Standard for ANSI Grade 1 Requirements

- ✓ Door control from 115 degrees of opening to the closed position.
- ✓ Two adjustable closing speeds required for single acting doors (general speed and latching).
- ✓ Successful completion of 2,000,000 cycles in a cycle test.

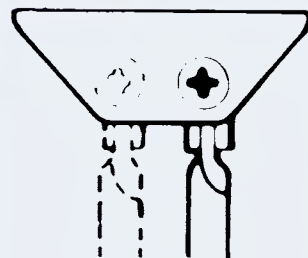
- ✓ Closer efficiency should be 60 percent or greater. Fifty percent acceptable for sizes 1 and 2.
- ✓ Withstand 25 hours salt spray test.

Avoid Problems With the Correct Number of Hinges

If you have a new project or renovation underway, a simple way to increase the life of the new openings and decrease your chance of having a doorway problem is to make sure you have the correct number of hinges installed for each doorway.

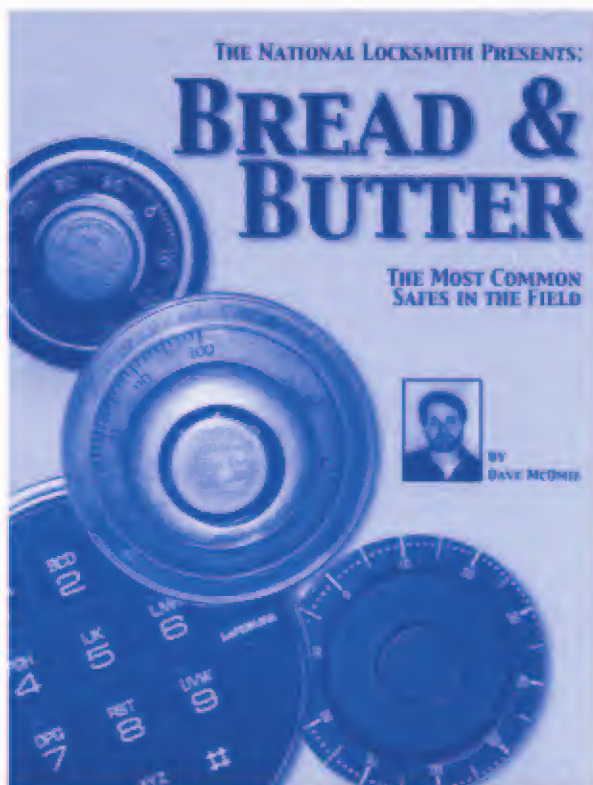
For doors that are normal height, three hinges allow the door load to be

Illustration 13



Adjust the leverage of arm by changing the pivot position .

Bread & Butter



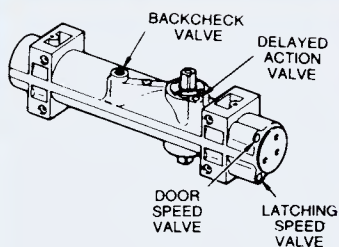
Now here is one amazing value!

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#BB - 01

Illustration 14



A delayed action feature permits the door to close very slowly.

distributed evenly, ensuring correct door alignment and enabling other hardware to function properly. It also helps protect doors against bowing, warping, sag and hinge wear. In some cases, more than three hinges may be necessary to accomplish these objectives, such as on doors over 7 feet 6 inches high.

Wood doors are especially susceptible to warp, and a third hinge prevents binding and keeps the door aligned.

Door and Latching Speeds

The Door Speed Valve, controls the

speed of the door from full opening to within approximately five inches of the closed position. The Latching Speed Valve controls the speed of the door from approximately five inches to full closing. Turning either valve in a clockwise direction shows the speed of the closing or latching.

Backcheck

A separate adjustable valve is provided on all closers to control backcheck. A door stop is recommended to serve as a final stop in order to protect the wall, trim, door and closer.

Arm Leverage Adjustment

The provision to adjust the leverage of arm by changing the pivot position of the arm in the foot. The foot itself does not have to be removed from the door or jamb. (See illustration 13.)

Delayed Action

A delayed action feature permits the door to close very slowly through the delayed action cycle range. Closers with this feature are furnished with backcheck as standard. (See illustration 14.)

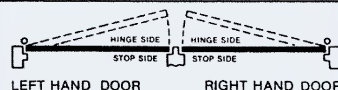
To order the proper Sargent door closer, see the specification chart in illustration 15.

Illustration 15

How to Order

EXAMPLE

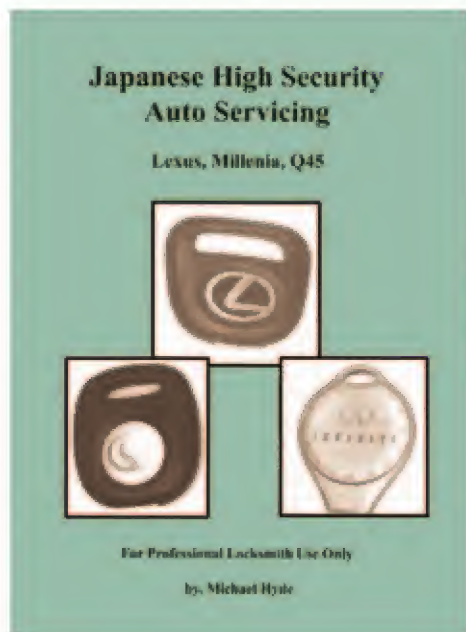
Finish	
EP	— Bronze Enamel to match US10
EB	— Bronze Enamel to match 10B
ED	— Bronze Enamel to match 20D
EN	— Aluminum Enamel
EAB	— Brass Enamel to be used with brass finishes.
3	— Bright Brass
4	— Dull Brass
9	— Bright Bronze
10	— Dull Bronze
10B	— Dull Bronze, Oxidized and Oil Rubbed
20D	— Statuary Bronze, Dark Lacquered
26	— Bright Chrome Plated
26D	— Dull Chrome Plated
Series	
350/351	EB 350-O
	EB 351-O
Size	
Non sized, 350 - 2 to 7 size, 351 - 1 to 4 size	EB 350-O
	EB 351-O
Arms	
Some arms are handed and must be specified when ordering.	EB 350-F (R.H.)
See pages 6 and 7 for available arms	EB 350-O
Arm Conversion Units	
Specify finish and unit	EN 125-P9
Thru Bolts and Mortise Nuts	
When ordering mortise nuts specify whether for use with closer body or foot and door thickness if other than 1 1/4". Add letters "TB" followed by applications and door thickness.	EB 350-O
	TB x Closer
	Body x 2 1/4"
	Door
Accessories	
Specify finish and accessory	EB 350-D



Sargent door closer, see the specification.

For more information on Sargent door closers call: 800-727-5477.

Circle 403 on Rapid Reply.



Japanese High Security

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#JAP - 1

BEGINNER'S CORNER

Servicing the 8 Line Sargent Knob Lock



by
**Jim
Langston**

The Sargent 8 Line lock is available in standard, light commercial, and heavy-duty Grade 1. The heavy duty is certified under ANSI-A-156.2 series 4000 for Grade 1, formerly FF-H-106B series 161. (See photograph 1.)

Design

The security for a lock begins with how well it is made. All Sargent bored locks feature "T" zone construction, where the latch tube and the aligning tube interlock to provide accurate alignment and direct linkage between the hub and the latch bolt. Another advantage of the construction is complete reversibility of the lock without the need for disassembly of knobs and cylinders.

8 Line Specifications

8 Line is a standard 2-3/4" backset and is certified under ANSI-A-156.2 series 4000. For Grade 1; 2-3/4" and 3" backsets are available.

Keyways

All Sargent knoblocks are available in different keyways. If you need to change keyways you don't have to change locks, all you need to do is to order another keyway to fit into your lock housing.

If you have an "R" series such as RA, RB, RC, and you need to change keyways, you can order a plug on a LA, LB, LC, LE, and so on. Put the new keyway into your cylinder housing and you will have changed the lock keyway, rather than buying a new lock. Some of the keyways are as follows:

RMB-Grand Master key blank

RDH, RDM, RHM, are Sub Master key blanks

Standard keyways are RA, RB, RC, RE, RF, RG, RJ, RK, RL

KMA-Grand Master key blank

LDH, LDM, LHM, are Sub Master key blanks

Standard keyways are LA, LB, LC, LE, LF, LG, LJ, LK, LL

HN-Grand Maser key blank

Continued on page 94



1. The Sargent 8 Line lock is available in standard, light commercial and heavy-duty Grade 1.

2. The spanner wrench needed to remove the rose.



HDH Sub Master key blank
Standard keyway HA, HC, HE, HF,
HG, HI, HK, HL

CN-Grand Maser key blank

CDH, CDM, CHM, Submaster key
blank

Standard keyways are CA, CB, CC,
CE, CF, CG, CJ, CK, CL.

The way you can use the various
keyways is when master keying a
motel for example, you can use the
KMB Grand Master blank on all of
your standard keyways, such as RA-
RL. Blanks RA could be used on the
first floor, RB could be used on the
second floor, and so on. The RDH,
RDM, RHM Submasters could be
used also for different floors.



3. A hole on the aligning tube where the retaining spring can be depressed.



4. Depress the spring and pull on the knob until it is in your hand.



Lock Repair Manual

Here, under one cover you have a tremendous amount of lock servicing information. Next time you run into a problem chances are you'll find the answer in the Lock Repair Manual.

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#LRM - 1

Functions

Sargent locks come in 14 different functions. They are available as follows:

Store room, entrance closets, passage, exit twin communicating, office, dormitory, motel rooms, class rooms, service stations, privacy bath rooms or bedrooms, knob/lever pull.

Knob Removal

Servicing 8 Line Sargent locks is very simple. *Photograph 2*, shows the spanner wrench needed to remove the rose. First you must loosen the ring on the rose by turning it counter-clockwise.

Once the rose has been loosened, you can then insert the other end of the spanner wrench into a hole on the aligning tube where the retaining spring is. (See *photograph 3*.) It may be necessary to rotate the knob or shank to align the retaining spring with the hole in the aligning tube assembly. Depress the spring and pull on the knob until it is in your hand. (See *photograph 4*.)

Lock Removal

If you need to remove the lock all together, you will have to use the same procedure on the inside knob.



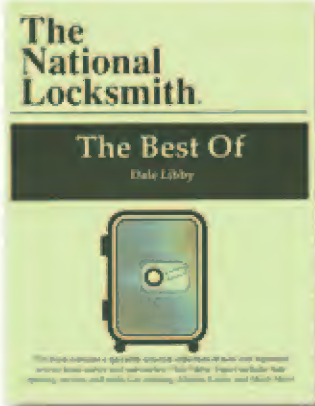
5. An aligning pin retains the latch assembly in the aligning tube.

With the inside knob removed you will notice an aligning pin that must be removed to remove the latch assembly. (See *photograph 5*.) With the latch removed the lock assembly can then be removed from the door. (See *photograph 6*.)

Rekeying the Lock

Both the heavy duty and the light duty locks come apart the same way. The knob on the left in *photograph 7*, is a heavy duty Grade 1. The one on the right is a light duty knob lock. At first glance it is difficult to tell the difference.

The Best of Dale Libby



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#DALE

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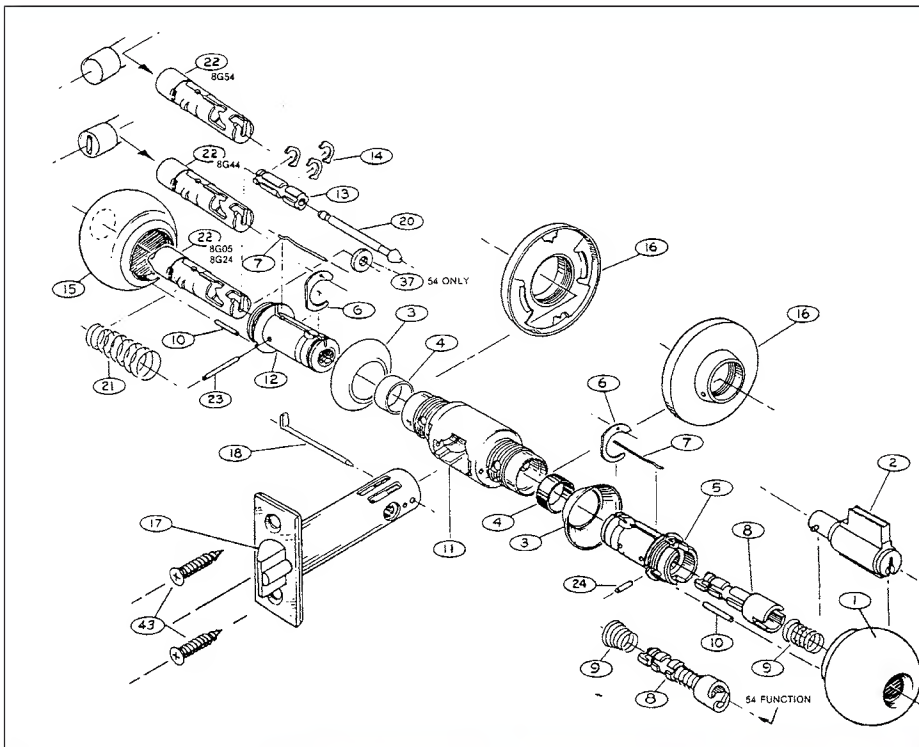
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6. Remove the latch and the lock can then be removed.



8 Line Parts List

Item	Description
1	Knob, cylinder ("B" shown)
2	Cylinder Assembly
3	Knob Collar
4	Nylon Ring, outside (black)
4	Nylon Ring, inside (white)
5	Shank, outside
5	Shank, outside
6	Knob Retainer
7	Knob Retainer spring
8	Driver Assy., outside
8	Drive Assy., outside
9	Cylinder Spring
9	Spiral Cam Spring
10	Knob Pin
11	Aligning Tube Assy.
12	Shank, inside
13	Hollow Driver, inside
14	Retainer Ring
15	Knob button "B" shown)
16	Rose ("O" shown)
17	Guarded Latch Assy.
17	Guarded Latch Assy.
17	Guarded Latch Assy.
17	Latch Bolt Assy. - 3/4" throw (05) (41 prefix)
18	Aligning Pin
20	Push Rod
21	Tail Spring
22	Turn Button & Tail
22	Universal Button & Tail
22	Push Button & Tail
23	Spiral Pin
24	Spiral Pin
37	Washer
43	#8-32 x 3/4" Machine Screw

7. The knob on the left is a heavy duty Grade 1. The one on the right is a light duty knob lock.



A. A complete parts breakdown.

To remove the cylinder from the knob you must take a small punch and punch the knob pin shown in *photograph 7*, inside the knob. With the pin punched in you can unscrew the outer shank by turning it counter-clockwise. (See *photograph 8*.)



8. Unscrew the outer shank by turning it counter-clockwise.



9. With the shank removed you now have access to the lock cylinder and retrieve the knob pin.

With the shank removed you now have access to the lock cylinder. (See *photograph 9*.) Once the lock cylinder is removed you can also retrieve the knob pin that was punched into the knob to remove the shank.

To reassemble the knob, reverse the order being sure to align the hole where the knob pin goes tap it in place until it comes flush with the knob. Now replace the knob cover plate and then reassemble the lock.

A complete parts breakdown can be seen in *Illustration A*.

For more information on Sargent hardware call: 800-727-5477, or circle 291 on Rapid Reply. **TNL**

TNL Subscriptions



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#SUB - 1,2,3,4,5,6

TECHNITIPS

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Grand Prize



Silca Bravo Duplicator

Joan B. Yarrington of Texas, for her tip in October on making an arbor adapter.

1st Prize



HPC's 1200PCH Punch Machine

Tom Perkins of Wisconsin, for his tip in May on impressing.

2nd Prize



Mas Hamilton's Auditcon 2100 & Certification Class

Harry Daniels of California, for his tip in May on making emergency car opening tools from cable ties.

3rd Prize



Curtis 2100 Duplicator

Leo Koulogianes of Tennessee, for his tip in March on making antique cabinet lock picks.

4th Prize



SDC Magnetic Lock, Keypad and Exit Switch

Marc Grizzard of South Carolina, for his tip in April on advertising.

5th Prize



LaGard "Smart Guard"®

Ellis Gibbs of North Carolina, for his tip in October on deactivating mortise cylinders.

6th Prize



\$500 in All Lock Products

Tom Tusing of Florida, for his tip in August on drilling a Volvo lock.

7th Prize



\$500 in ASP Auto Locks

D. Nash of England, for his tip in July on how to open a deadlocked BMW.

8th Prize



\$500 in Strattec Auto Products

Charles Chapple of Georgia, for his tip in February on VATS repair.

9th Prize



Arrow Exit Device and Mounting Kit

Clarence White of Tennessee, for his tip in February on making an opening tool for Mercedes.

10th Prize



Dewalt Cordless Drill

Howard Fulks of Oregon, for his tip in June on making a Binks-type cylinder.

11th Prize



Detex ECL-8010W Wetlock®

David Craig of Illinois, for his tip in October on making a 180° thumb turn.

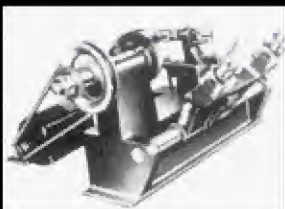
12th Prize



Securitron DK-26 Touchpad and Cpu Board for Magnetic Lock

Elaine Wilhoite of California, for her tip in January on how to find missing codes.

13th Prize



Foley-Belsaw 200 Key Machine

John C. Smith of Florida, for his tip in September on servicing the new Chrysler ignition.

14th Prize



Accu-Mark™ Key Stamping Machine

Patrick O'Leary of New York, for his tip in September on how to make a thumb turn.

15th Prize



S&G 6120 Electronic Safe Lock

J. M. Cozby of Texas, for his tip in August on making a clip removal tool.

16th Prize



High Tech Tools 2500 Pro Set

William T. Allgood of South Carolina, for his tip in April on removing a broken Nissan key.

17th Prize



Slide Lock's Master "Z" Tool Set

Jeffrey Rosen of Colorado, for his tip in November on servicing VW/Audi ignitions.

18th Prize



ESP Products Sampler

Bill Frasse of Delaware, for his tip in May on Chrysler Transponder keys.

19th Prize



Baxter JV-1 and JV-5 Code Books

Dennis Harmon of Colorado, for his tip in January on making Pin Sticks.

20th Prize



Major Manufacturing's HIT-111 Drill Guide

Harold Franken of Missouri, for his tip in November on opening the trunk of a BMW.

21st Prize



Falle Pick Set From Mark Bates Associates

Bill Cochran of Wisconsin, for his tip in December on cutting strike slots in wood cabinets.

22nd Prize



Sieveking Products Squeeze Play

Jim Rhon of New York, for his tip in December for a unique two-way strike plate.

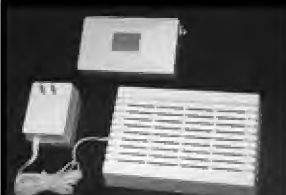
23rd Prize



ABUS Padlock's Marine Padlock Display

Vincent Chestnut of Massachusetts, for his tip in March for a van door hold open device.

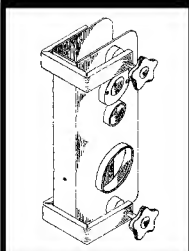
24th Prize



Rodan's AV 100 Heavy Duty Door Annunciator

Jared Robinson of Australia, for his tip in December on a homemade plug spinner.

25th Prize



A-1 J-50 Installation Jig

Thomas D. Cole of New Mexico, for his tip in April on opening a TAC-II.

26th Prize



M.A.G. Engineering Sampler

Frank Spencer of Oregon, for his tip in May on securing glass doors.

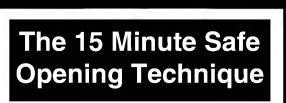
27th Prize



Framon Impressioning Handle

Walt Thompson of Georgia, for his tip in October on an A-2 Best/Falcon pinning chart.

28th Prize



Book — 15 Minute Safe Opening Technique by Jake Jakubowski

Terry Heinrichs of Canada, for his tip in June on Ford 10-cuts.

"Stay tuned" for the new list of monthly and year end prizes.

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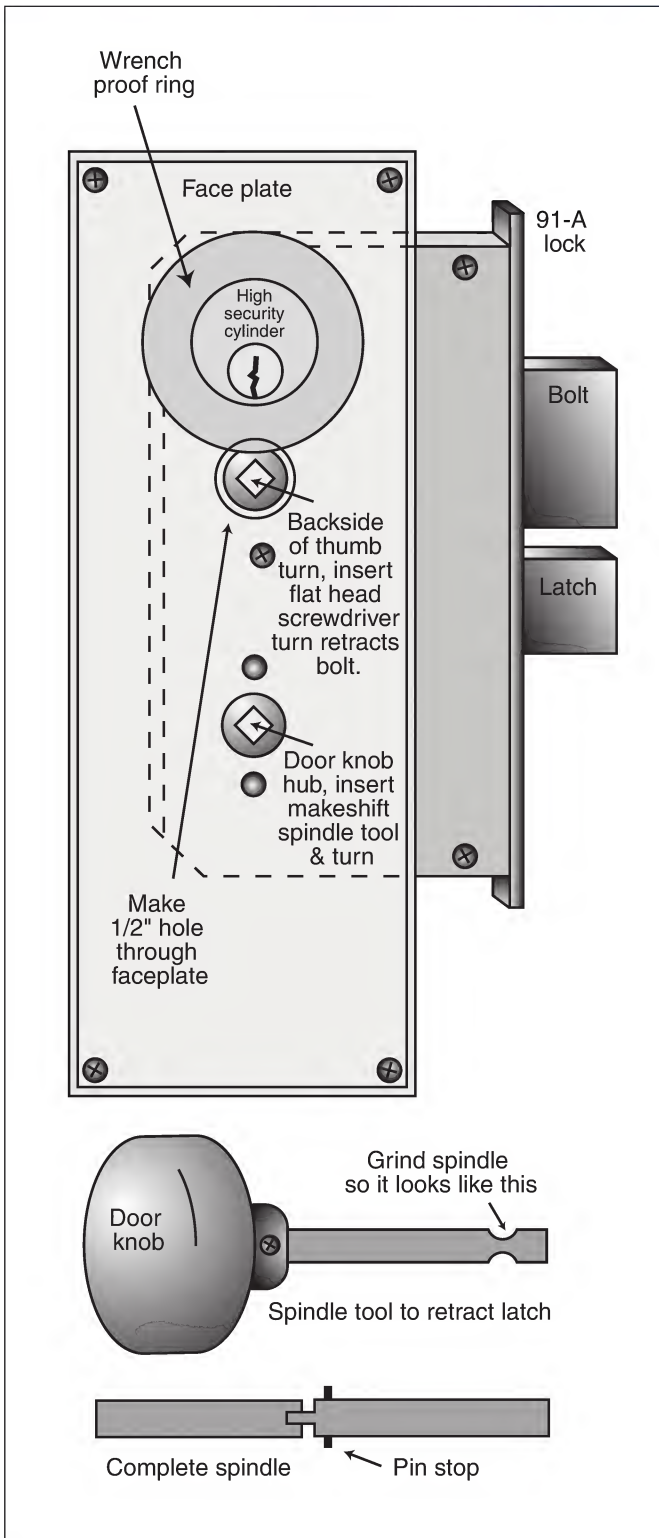


Illustration A.



*BWD Ford or GM
 KwiKit Winner:*
**MARKS/SECURITY
 CYLINDER
 OPENING**

The call was to open a Marks 91-A, full mortise lock set with a high security cylinder. The customer had misplaced his keys and did not want me to drill the cylinder and ruin it.

After examining the lock and

106 • The National Locksmith

A Few Words From Jake...



**by Jake
 Jakubowski**

Last month I promised that periodically the introduction to this column would consist of a tip from me to you that you may use to good advantage. This month marks the first of those tips. My first tip is that next month's (March) Technitip column will have an updated monthly and year-end, prize contributor's list. There won't be that many changes, but we do have a new contributor or two.

Jakubowski's Jabber

Have you ever had a customer ask you to service their Detex Exit Device and when you request a key to remove the cover, the customer does not have one? This is a common problem, folks!

If you're like me, at one time or the other, you've probably tried to pick the cover lock, impression it, read it, force it, or drill it and replace it, just so you could get into the case to change the battery or rekey the lock cylinder!

Well, there is an easier way.

First, the case cover locks are really nothing more than simple wafer locks. However, when you try to pick them (especially on the newer Detex models) you find that you have to pick the cylinder four times for each complete revolution it makes as it comes off the spindle. Because this lock is a Detex proprietary lock, there are, to my knowledge, no published codes for the keys. However, there are ten key configurations (DT311 to DT320) available and you can buy a complete set directly from Detex!

Just write them a letter on your business letterhead (DETEX Corporation, Customer Service Division, 302 Detex Dr., New Braunfels, TX 78130) and tell them you want to buy a complete set of the case cover lock keys. The keys will be a good investment and a welcome addition to your toolbox the next time you have to remove a Detex case cover. For pricing and shipping information call Detex at 1-800-729-3839 or fax them at 210-629-2900. Tell 'em, "Jake, told me to call."

comparing it to one that I had in my van, I first unscrewed the outside door knob from the spindle. Then I tried to shove the spindle through the lock case and into the apartment. However the pin stop on the spindle prevented me from pushing the spindle through the lock case. (See illustration A.)

I used a pair of Vise-Grips® to grip the exposed spindle and by working the Vise-Grips up and down, I was able to break the spindle and remove it from the lock. Then, I drilled a 1/2"

hole through the faceplate, and approximately 1/2" down from the bottom of the cylinder which put my hole in line with the thumb-turn. I drilled just deep enough to enable me to see the backside of the thumb turn's spindle.

Once I had that spindle exposed, I used a flat bladed screwdriver — inserted in the spindle hole — to throw the deadbolt to the unlocked position. Then I inserted a special tool that I had made into the spindle hole and shoved it far enough in so that it would engage the inner spindle hub. By binding the inner hub with the tool and turning it, I retracted the latch and opened the door.

Once the door was open, a new faceplate, spindle and some plumber's epoxy were all that were needed to repair the door and lockset.

Michael Maldonado
New York



Aero Lock Tryout Key
Set Winner:
**VOLVO IGNITION
TRICK**

The retaining snap-ring on Volvo's S70 ignition can be removed without destroying the ignition, or anything else.

At the four o'clock position, 5/16" back from the face of the ignition, drill a small hole. Let me caution you to make sure you drill at the four o'clock and not at, or near, the three o'clock position. Why? Because at the three o'clock position, there is a flat steel bar that will make your day less than serene if you drill there. Once you have the hole drilled, you should be able to see one end of the retainer.

Next drill a series of small holes in a clockwise arc, downward around the column, about three quarters of an inch long. Clean out between the drilled holes to create a slot. Using a small screwdriver or similar tool, pry up on the end of the retainer. Use a small pair of Vise-Grips® to grasp the end of the retainer and work it out. This will distort the retainer somewhat, but it can be re-formed and reused.

Another cautionary note: There is a small cap near the switch at the three o'clock position. Do not remove that cap, since its removal will do nothing for you but cause you grief!

Once you have removed the retainer ring, you can see a large steel plate at the bottom of the housing that is staked in place. This plate needs to come out just a little to release the cylinder. To lift up on this plate, it is necessary to grind away some of the staking and then drill a small hole next to the plate so you can use a probe and pry the plate up. Just remember, the plate only has to move a little bit to release the cylinder. Once you have the cylinder out you can service as needed.

Mike L. Martin
Washington



Strattec Products
Winner:
**CORBIN/RUSSWIN
RETAINER TRICK:**

Have you ever disassembled a Corbin/Ruswin Unit Lever Lock? If

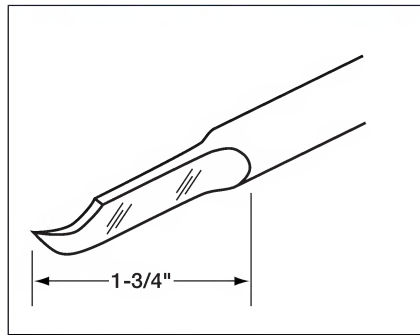


Illustration B.

you have, this tip will really make your day.

I work on large numbers of these locks and the retainer clip is in a position where it's nearly impossible to remove unless you resort to magic.

In frustration, I called the factory to see if there was an easier way, or a tool that would speed up the job. I was told that "Our guys make their own." So, I decided to make my own clip removal tool for the retainer clip in these locks.

In *illustration B*, you can see how I took a #4 Phillips screwdriver and ground opposite sides of the shank flat, and parallel to each other.

I rounded the end as you can see in the illustration and ground a hook into the shank.

Now, with this tool, I can move the lever stop aside, hook the retainer and pry it out all in one motion. To reinstall the clip, I still find that a small screwdriver works best.

Mark S. Snead, CPL
Ohio



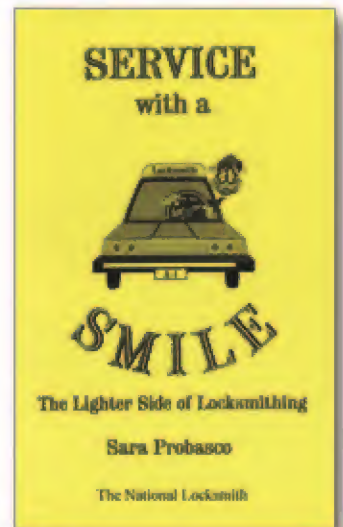
HPC Pistol Pick™ Winner:
**BEAM 'ER OPEN,
SLIM**

The call was to open an overhead garage door. I had just recently installed deadbolts, window locks, patio door bars and all sorts of security goodies for this customer. His keys had been stolen and he wanted me to get him in his house, or at least his garage since he had a spare key in the garage.

I thought the situation over a few minutes and asked him if he had an automatic opener on the garage door. He said he did and that it even had one of those beams that kept the door from accidentally closing on someone. I remembered seeing an ad about the infrared beam he was talking about and decided to see if I could activate the opener.

I took an old Slim Jim and bent it

Service with a Smile



To tickle the funnybone
of anyone in a service
oriented business.

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#SWS

90° at the tip and then again in the middle and worked it under the door and upwards. It took about a minute of moving the Slim Jim around before I broke the infrared beam and the door opened.

I don't know if all garage door openers have this feature, but if you get a garage door lockout, it might be worth your time to try this trick.

Troy W Hartson
New Hampshire



Sargent & Greenleaf
4400 Series Safe
Deposit Box Lock
Winner:
**SPLINE KEY AND
CAM ALIGNMENT**

When disassembling combination locks with the four-way drive cams, it is sometimes very easy to forget how the lock was splined. To keep this from happening to me, I mark the cam where the spline key was inserted with "WhiteOut." It doesn't mar the cam and is easy to see.

Arnold Zielske II
E-Mail



A-1 Security Products
Winner:
**EASY SCREW
STARTS**

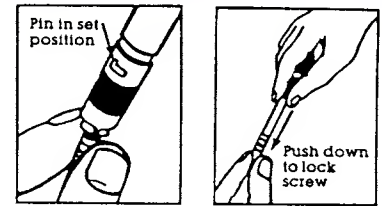
It is often difficult to align the machine screws which secure inner cylinders or thumb-turns on some deadbolts and the inside knobs, or roses on certain tubular lock sets with the mating tapings, to get the threads started.

A Screw Starter has spring steel fingers which grip the screw heads tightly for fast and easy one-hand thread engagement. (See illustration C.) This leaves the other hand free to hold the hardware in position. The fasteners can then be tightened down with a regular screwdriver.

These tools retail for about five dollars each and are available in both slotted and Phillips version. The tool is available at Sears from Craftsman.

Peter
Shifferli
New
York

Ilco Key



How to use this screw starter:

1. Push head up. Insert blades into screw head.

2. Snap head down. Blades grip screw tight!

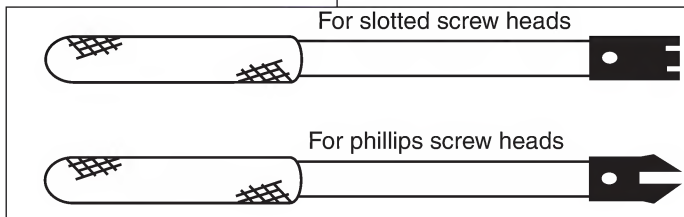
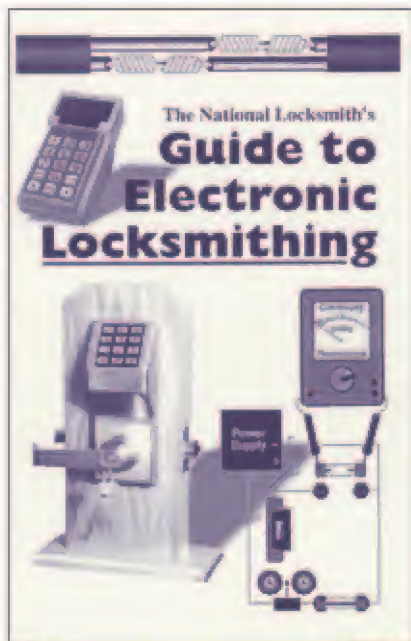


Illustration C.



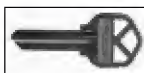
Electronic Locksmithing

Everyone knows there's big money in selling, installing and servicing electronic security such as mag locks, electronic strikes, and simple access control.

CLICK HERE TO LEARN MORE



#EL - 1



Blanks (100) 'Winner:
**QUICK PIN
LOADING**

I find it difficult with my shaky hands, to load springs and top pins into the upper pin chambers of pin tumbler locks. I solved my problem by cutting a "V" notch in a solid follower. I could then line the "V" up with a pin chamber, drop a spring in and gravity would drop the spring into the chamber.

Then I would just drop in the top pin and push it down into the camber with a small scratch awl

This has sped up my rekeys considerably.

R. C. Smith
Ohio



PRO-LOK Pick Set
Winner:
RAP SESSION

Being relatively new to the trade, I have hesitated to offer a tip, but, here goes. If you have an unlocked door that has a broken key in the lock that proves difficult to remove, try the following.

Remove the knob, or cylinder, and tape the face of the knob/cylinder to protect it from scarring. Now hold the knob, cylinder or plug in you hand, with the keyway facing downward, and bang it sharply against a solid wood surface. This will force the broken part of the key past the pins far enough to allow you to pull it free.

I submit that this is a last resort type of action, but it has worked well for me on a variety of locks. It may not be "pretty," but it has gotten me out of trouble a number of times.

Mike Moriarty
Massachusetts

Editor's Note: Mike, thanks for the tip. I've said dozens of time since I took over the editorship of this column, that I don't care if you've been a locksmith six months or six decades: your tips are welcome because no matter how long we've been at it, there is always something new to learn!



Tech-Train Training
Video Winner:
**MAGNETIC
KWIKSET FIX**

I had just finished rekeying fourteen Kwikset 660 deadbolts and had put my tools back into the van when I decided to make a final check of the locks. Going room-to-room, each lock operated as it should until I hit one where the key and plug wound up in my hand and the top pins and springs all over the place.

Obviously, I had improperly installed the "C" clip. The plug came out of the lock and left the tailpiece in the bolt mechanism.

I tried to use a small screwdriver to throw the bolt, but could not get a grip on the end of the tailpiece that would allow me to turn the bolt to the unlocked position.

Not wanting to drill the lock and ruin it, I went to my truck and picked up my telescoping magnet. I inserted the magnet, heard a distinctive "click," removed the magnet and there was the tailpiece hanging from the end.

Now it was easy enough to get a

screwdriver to throw the bolt to the unlocked position, take the lock off the door and repair it.

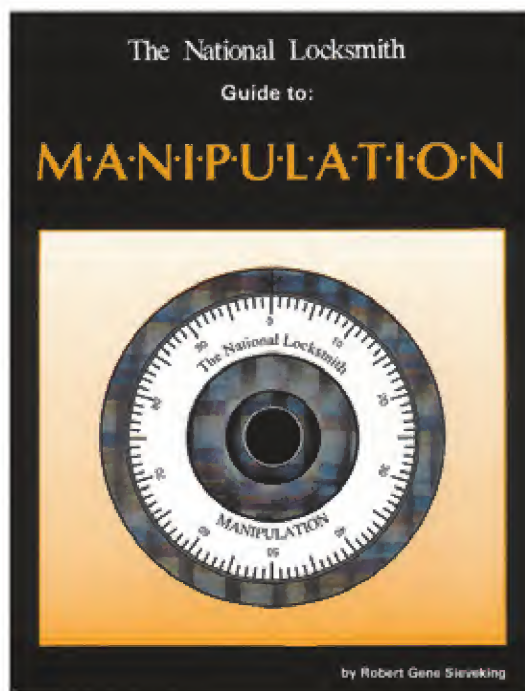
R. J. Bent
New York

Sievekings Products GM E-Z Wheel
Puller Winner:
EASY ESCORT IGNITIONS



I have found an easy way to service Escort ignitions that have the roll pins holding the ignition in. The one that I did recently was a 1992 wagon with an automatic transmission. The key would not return to the locked position

Manipulation Home Study Course



Our home study course guides you on step-by-step process, teaching you everything there is to know about manipulation.

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#MAN - 1

because the pin that rides up on the plug would hang up.

I removed the shroud and electrical connections and the four bolts holding the steering column to have better access to the shear-head bolts. Then I removed the ignition and the control cable that is connected to the transmission. I found that by removing the bracket that the cable connects to (two Phillips screws) you have a clear view of the plug. Also, you have plenty of room to access the retainer clip, which can be removed with any hook type instrument. The plug will slide right out the front without having to remove those pesky roll pins. You can then service the ignition and slide it back in.

I haven't tried it yet, but it may be possible to remove the plug without removing the ignition from the steering column.

Maurice J. Poulin
Connecticut

Major Manufacturing Winner:
MASTER LEVER REKEY HELPER

Major
MANUFACTURING, INC.

I had to generate a new key for a Master lever set. As most of you may know, to pick this lever set and remove the handle, it is necessary to pull out, and hold in the extended position, the tailpiece, or locking bar.

I have always found it difficult to pull out the bar, and pick the lock at the same

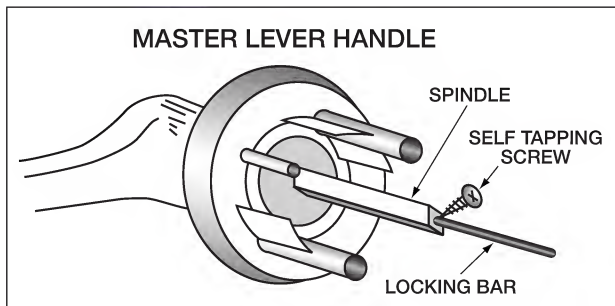


Illustration D.

time. So, what I do is pull out the bar and lightly start a self tapping screw into the spindle to wedge the bar. (See illustration D.) That leaves both my hands free to work on picking the lock. I find that this works well on Weiser, too.

Tony Vinton
New Zealand

Editor's Note: Tony, third hands come in all styles and sizes. My preference for

what you accomplished with a screw is a pair of small, needle-nosed Vise-Grips®. But that's what makes our trade so interesting; each of us uses whatever is at hand to get the job done.

Slide Lock's "Z" Tool Opening Set
Winner:
FIND 'EM BY THE NUMBERS



To quickly and easily locate the car opening tool that I want, I use Electrician's Numbers (the stick-on variety) to identify all my car opening tools. I simply stick one number on the handle of each tool and in my car opening manual, I put the corresponding number on the appropriate picture.

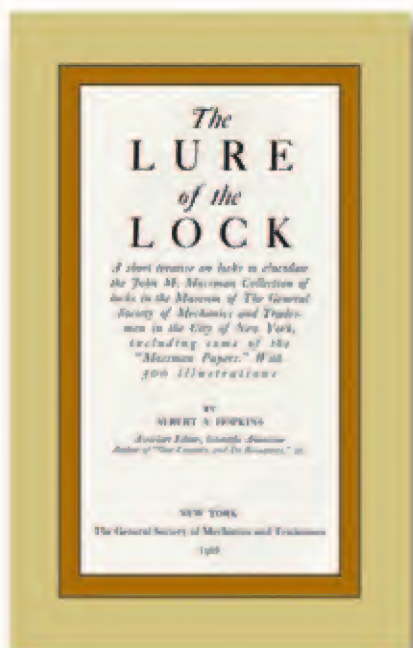
This sure speeds up finding the right tool. Even at night and during inclement weather.

Bob Daluisio
New York



The Sieveking Auto Key
Guide Winner:
EASY DEPTH READING

Many locksmiths will originate a wafer lock automotive key by "reading" the depth of each wafer by the



The Lure of the Lock

This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.

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#LURE

extent to which a particular wafer rises above the "shear line" or surface of the plug. This is accomplished by inserting an uncut blank in the keyway and reading the wafers through the drain hole of the cylinder housing.

Sometimes, it can be rather difficult to accurately read the wafers when some wafers obscure the view of the wafer directly behind it.

I find that by using depth keys, one can easily determine the proper depths of each wafer since the depth keys will bring each wafer into alignment with the surface (the shearline) of the plug. For me, this eliminates all the guess work.

Wison Khunamat
Florida



Jet Key Blanks (100)

Winner:

TOOL BAG STORAGE TUBES

Like many other locksmiths, I'm one that wears a tool pouch when I'm working on a particular job site. One problem I have found with wearing a tool pouch is that there are no compartments for small items that I want to have handy, such as: face plate screws, and rubber door silencers and the like.

What I found that fits my needs

admirably are the plastic storage containers that some cigars are sold in. Those containers are long and thin — like most tools — and will easily fit right into a tool pouch.

I'm not promoting cigars or cigar smoking, but I find that the brand that has a container that is suitable to my parts storage needs is Garcia Vega English Coronas. The tubes are tan, about six inches long and have a brown cap. I am sure that other brand's tubes, with a similar tube will work just as well.

Vernon P. Kelley III, CRL
New Jersey

HIGH TECH TOOLS

High Tech Tools

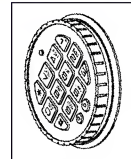
Winner:

RECYCLED GM STAKING JIG

Trying to hold a plug, a punch and use a hammer at the same time can be less than fun. To accomplish this three-handed task, I used an old GM door lock cylinder housing (and a trunk lock housing) and cut away the section above the retainer with a hacksaw.

Now, I can put a plug in my modified cylinder housing, clamp the housing in a vise, and stake the retainer down with ease. Best of all, it's a free tool!

Chester A. Bell
New York



LaGard ComboGard

Winner:

PVC TOOL AND PARTS HOLDERS

The next time you're around a commercial or residential building site, look around for and pick up some discarded pieces of PVC plumbing pipe. PVC comes in various diameters and you can use it for a multitude of parts holders.

Photograph 1, shows how I made a pen and pencil holder out of one piece and a pick set holder out of another after. You can screw these down to a workbench or put caps on both ends and haul them around in your van.

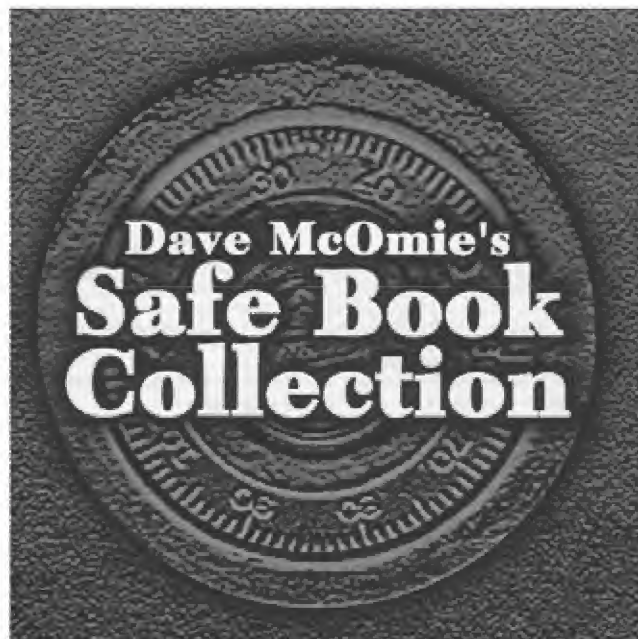


Photograph 1.

I think it's a great, economical way to organize a multitude of small tools, parts, etc.

John J. McCollough
New Hampshire

TNL



Dave McOmie Safe Book Collection on CD

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#DMCD - 1

The UGHTER Side

"Just One Of Those Days"



by
**Sara
Probasco**

It was one of those days when nothing is easy. You know the kind: the electricity blinks off during the night, so your alarm doesn't get you up; you drag out of bed to discover there's no coffee in the pantry; you reach for your portable phone to call in late, but the battery has died and you haven't even gotten awake yet!

That particular morning, Rickie left early in our older van, responding to a vehicle lock-out call. Rickie was a bit new at this, but it seemed a task well within his capabilities. That was before we realized it was one-of-those days.

He'd been gone a while when Keith took a service call to replace an entry lock at a residence not far from the vehicle in question.

"Since Rickie's van doesn't have a cell-phone, you want me to swing by when I'm finished, and see if he needs any help?" Keith offered.

"Good idea," Don replied. "He'll probably be back before then, but since it's not out of your way, it wouldn't hurt to check, just in case."

"My job won't take a minute. I just need to pull old hardware and slip in new. It's the exact same lock. A piece of cake." Keith flashed his winning smile.

On the job, Keith removed the lockset from the customer's door and prepared to slide the new one into the existing hole. It wouldn't go in. He checked the new lockset to see what might be causing the problem, but could find nothing. He looked at the hole then he looked at the old lockset. The two locksets seemed identical, but wait! This was one-of-those days! The old lockset had a slightly smaller diameter than the new one, and the hole in the door had been drilled smaller than was needed to accommodate the new hardware.

"Oh, great!" Keith muttered. Rummaging through his tools, he couldn't find the hole saw. "Terrific!" He added, remembering he'd taken it

into the shop and left it there. Improvising, he grabbed a wood rasp and his pocket knife and set to work, finally, managing to enlarge the hole sufficiently to complete the task.

"Rickie's job is probably past history, by now," he grumbled to himself as he headed back to the shop, but he took the main-street route, just to be sure. To his surprise, the brown service van was still there. So was a very frustrated Rickie, diligently at work still trying to get the customer's car open.

"Am I glad to see you!" Rickie admitted in a whisper. "I've tried everything. I even looked up stuff in some old manuals I didn't know we had. Nothing works!"

"Here I am, to save the day!" Keith said, glancing about for a telephone booth to step into. In short order, they had the vehicle open and the customer on his way.

"The thing is," Keith explained to Rickie, "the diagrams in that manual are exactly backwards, for this model. Where it says to manipulate the tool clockwise, you have to do it counter-clockwise."

"Oh, great! How do you know about these things?" Rickie moaned.



"A RETURNED MESSAGE FROM
A LOCAL LOCKSMITH"

Keith's chest expanded a bit. "Experience," he said.

"Excuse me, boys." A woman's voice softly interrupted their conversation.

They turned to see a small lady with silver hair.

"I wonder if you have time to open my car door for me. There seems to be something wrong with my key. I can't get it to turn like it should," she explained.

"Yes, Ma'am," Rickie replied. "Which car is it?"

"The black '87 Chrysler, just down there." She gestured vaguely. "I have to pick up something at the drug store, but I'll be right back."

As the lady entered the store, the two men proceeded down the block to get her vehicle open for her. Keith had just inserted the appropriate tool into the passenger door when Rickie said, "You really don't need to do that."

Keith looked up. "What do you mean?" he asked.

Grinning, Rickie reached through the open back window and popped up the driver's door lock.

Just then, the lady reached the site, and Rickie held open her door with a flourish. She got inside, settled into the seat, and inserted her ignition key.

"How much do I owe you boys?" she asked.

"Not a penny," Rickie replied benevolently. "This one is on us. You have a good day, now."

Rickie and Keith had begun to walk away, when the sharp blare of a horn spun them back around. The lady was beckoning them back.

"I don't know what you boys did, but now my ignition won't work," she said. "And, I must say, I don't appreciate your leaving your trash in here." She indicated scraps of paper on the floor-board. "Just look!" She pointed to the worn upholstery and

sagging headliner. "My car wasn't like this, when I left it."

Just then a large, burly man came charging out of an office building. Built like a brick wall, he was snorting like an angry bull at matador time.

"What do you turkeys think you're doing?" he demanded. "Get away from my car, before I break you in half!"

"Now... now, just a minute," Keith stammered. "We're locksmiths." He pointed to the company name on their shirts. "That's our truck, down there, see? This lady asked us to get her car open for her, and that's what we've been doing."

"Well, it's not her car. It's my car. And I don't want you messing with it!" the man roared. Yanking open the driver's door, he took the old lady firmly by the arm, lifted her out, and set her on the sidewalk. "Now, git! All of you!"

"But...but..." the lady sputtered, anger tinging her cheeks pink.

"Excuse me, everybody," Rickie interceded. "I think I see the problem."

All eyes followed as he pointed. A few cars down, was parked another

black '87 Chrysler, the exact same model as the first, except that it was in mint condition, inside and out.

Making their apologies to the man, Keith, Rickie, and the lady made a quick exit. Then Keith proceeded to open the correct vehicle, while Rickie glanced nervously up the street at the man, watching him roll up windows, lock his vehicle, and storm back into his office.

"Now this is more like it," the lady said, when the guys had her securely in her own pristine vehicle. Then she looked up with panic in her eyes. "Oh, my! My purse isn't here. I must have left it"

Keith looked at Rickie; Rickie looked at Keith. "Oh, no!" they said simultaneously.

Dashing back to the first vehicle, they peered in through the window of the locked door. Sure enough, there was the lady's purse, sitting on the front seat.

Keith sighed, "Well, Rickie, I guess you'd better go inside and get the man to come unlock his car for us."

"Me? No way am I going in there and get creamed! I mean, why bother

the nice man again? Let's just open it ourselves," Rickie pleaded.

"Right!" agreed their customer. "You did it before; you can do it again."

"Wrong!" Keith replied. "When we opened it before, we all thought it was your car," he said to the lady. "Now that we know it isn't, it would be a case of illegal entry. We'd be breaking the law."

"And that gorilla would be breaking our necks, if he caught us," Rickie offered.

"Yeah. That, too," Keith agreed. Then his eyes grew wide. "But, what really worries me is what Sara would do to us, if she had to come get us out of jail!"

Rickie bolted for the office door.

**"Where are you going?"
Keith called.**

**"I'll take my chances
with the gorilla."**

TRL



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the locksmith!

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#DIS - 2000

Locksmith Tools

from Sieveking
Products Co.



by Sal
Dulcamaro, CML



1. The Squeeze-Play hollow metal door mortiser.

3. The Door-Core metal door reinforcer.



Besides writing numerous technical articles and books for the locksmith industry, Bob Sieveking produces a number of interesting professional tools for locksmiths. One such tool is the Squeeze-Play hollow metal door mortiser shown in *photograph 1*. This tool is quite handy for lock installations on hollow metal doors.

The Squeeze-Play

Typically, on a non-factory prepped hollow metal door, installing a tubular or cylindrical style lockset would often suggest the use of a drive-in (or round face) style latch bolt. This mounting method, though considered acceptable, often leaves the latch bolt somewhat less stable than a mortised plate style latch bolt. The other common option is to cut the rectangular shape of the latch bolt plate into the edge of the door and use mounting tabs. Although much more stable than using a drive-in bolt, this method requires considerably more time and work.

The Squeeze-Play tool simplifies the process considerably. After using a 2-1/8 inch hole saw to make a crossbore hole and a 1 inch hole saw for the edge bore hole, the Squeeze-Play can be used to reshape the sheet metal around the edge bore hole to create the mortise needed to accept the rectangular plate of the latch bolt. The taller metal part of the tool shown (*at the left in photograph 1*) is inserted into the crossbore hole and the other piece with the bolt attached is connected through the edge bore hole to the other piece.

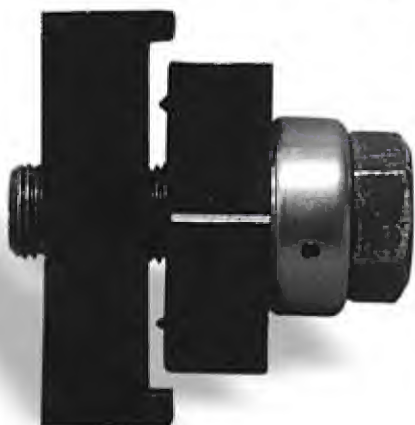
Photograph 2 shows how the tool, when squeezed



4. The large format Clamp-King.



5. The large format Clamp-King is ideal for holding such cylinders securely without damaging the threads.



2. When squeezed together by tightening the bolt, brings the two metal blocks together.

together by tightening the bolt, brings the two metal blocks together. The sheet metal in the edge of the door gets squeezed together with the tool and creates the rectangular shape of a latch bolt plate. At the same time, the two pointed raised spots automatically center punch the locations of the mounting screws for the latch bolt. Once the tool is removed, the mounting screw holes can be drilled.

The metal blocks of the tool are of hardened steel construction. It uses a grade 5 bolt and a quality thrust bearing. The Squeeze-Play is black oxide coated for rust resistance. It can be used on edge seamed doors up to 12 gauge steel. I don't think the tool will work with hollow steel doors where the seam meets down the vertical center of the door edge.

Regardless of the method for attaching a latch bolt, another common problem occurs when installing locks in non-prepped hollow metal doors. When tightening the screws that hold the lock on the door, the unsupported hollow center allows

Ask Dave



You asked. He answered. This is safe and vault Q&A with an attitude.

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#AD - 1

the screws to tighten further than they should and deform the surface of the door around the crossbore holes. There is another item from Sieveking Products that helps resolve that problem.

Door-Core

Photograph 3, shows some samples of the Door-Core metal door reinforcer. It starts out flat (see the unformed Door-Core just to the right of the product envelope) and is shaped to the size you need. It can be used for locks requiring crossbores ranging from 1-1/2 inches to 2-1/8 inches. It can also be used on some hollow wood doors. The primary value of this door reinforcer is that it keeps the door from collapsing as the lock mounting screws are tightened. The other related benefit is that you can fully tighten the screws without trying to guess how far you can safely squeeze the unsupported hollow center of the door. Ultimately the Door-Core makes the lock installation stronger and more secure.

Cylinder Holding Devices

Sieveking Products makes a couple of different size cylinder holding devices. Both share the name "Clamp-

King," but are designed for different type lock cylinders. They are made from hardened chrome molly steel, and black oxide coated for rust resistance.

A sample of the large format Clamp-King can be seen in *photograph 4*. It is designed for holding standard diameter mortise or rim cylinders. *Photograph 5*, shows how the large format Clamp-King holds a typical mortise cylinder. It is ideal for holding such cylinders securely without damaging the threads. The Clamp-King can be held in the jaws of a bench vise and tightened sufficiently to grip a mortise cylinder around its outside circumference.

When held solidly in the Clamp-King, a mortise cylinder can be serviced in a variety of ways. Top loading pin chambers can be made easy, along with the act of positioning and seating slide covers to contain pin tumblers and springs. Picking or shim picking is simpler when the cylinder is held in a fixture and both hands are



6. A small format Clamp-King can be used to hold a GM sidebar plug but it is also designed for holding a number of different brand knob lock cylinders.



7. An ASSA knob cylinder held inside the small format Clamp-King.

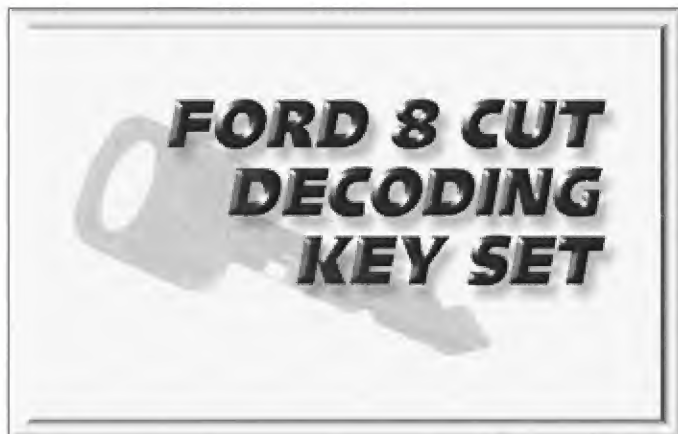
free. The same applies to any other servicing procedure when both hands are needed.

A small format Clamp-King is shown in *photograph 6*. A slot on the right side hints how it can be used to hold a GM sidebar plug for servicing, but it is also designed for holding a number of different brand knob (or lever handle) lock cylinders. *Photograph 7*, shows an ASSA knob cylinder, designed for use with Schlage commercial knob locks, held inside the small format Clamp-King. This works well when holding such cylinders for staking the slide covers without crushing or deforming the lock cylinder shell, which would interfere with the smooth operation of the lock cylinder. It also works with Medeco knob cylinders and others of the same basic size.

A number of other useful locksmith tools are also available from Sieveking Products Co. For additional information about the tools mentioned above and others, contact: Sieveking Products Co., 3437 South Bend Road, Rockford, IL61109. Phone: 815/874-4030.

For FREE Information Circle 411 on Rapid Reply. **TNL**

Ford 8 Cut Decoding Key Set



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#FD - 8

Battling for or against Independent Contractor Status

by Mark E. Battersby

Although many locksmiths work hard to achieve and retain their "independent contractor" label, the question of classifying their own workers as independent contractors or as employees is not an easy one. Just ask the 13,000 small businesses that were audited between 1988 and 1996. Or, the attendees at the 1995 Small Business Conference in Washington, who placed it as their top concern.

The 13,000 audits that the Internal Revenue Service conducted at small companies resulted in 527,000 worker reclassifications and \$830 million in back taxes and penalties, according to the U.S. Senate Committee on Small Business. The audits were part of the IRS' effort to crack down on businesses that misclassified workers in order to avoid withholding income taxes, withholding and paying Social Security and Medicare taxes and paying unemployment taxes.

It is only natural that many of those who provide services to a locksmith or security business prefer to be labeled — and treated for income tax purposes — as independent contractors. After all, as an independent contractor, the individual gets more tax breaks or deductions than they might as an employee. Of course, on the downside, an independent contractor may end up paying more in Social Security and Medicare taxes. From an employer's perspective, every locksmithing business can reduce its already overwhelming paperwork burden and roll expenses, simply by labeling workers as independent contractors. However, blindly treating everyone who performs services for the locksmith business, as an independent contractor can prove quite expensive to both the business and the owner.

When independent contractors are used, a locksmith business can save on employer-paid employment taxes such as FICA (Federal Insurance Contributions Act or Social Security), FUTA (Federal Unemployment Tax Act) taxes and state unemployment compensation taxes. Workers' Compensation contributions may also be reduced or eliminated through the use of independent contractors.

Our Confusing Tax Laws

Unfortunately, our tax laws are far from black and white. Like the color gray, there can be a great deal of honest disagreement about the status of a worker or a group of workers. When reclassification of a worker from

It is only natural that many of those who provide services to a locksmith or security business prefer to be labeled — and treated for income tax purposes — as independent contractors.

independent contractor to employee occurs, the employer faces sudden expenses:

- The employer FICA that should have been paid to the IRS will be assessed against the employer.
- As a general rule, state unemployment compensation (UC) rates averaging between two and four percent of wages up to the taxable limit (usually the first \$7,000 in wages that should have been paid) will suddenly become due.
- The Internal Revenue Service will prepare to assess 6.2 percent

and not the 0.8 percent FUTA most businesses pay for employees. This is because the offset or credit from 6.2 percent down to 0.8 percent is not available to employers that treated the worker as an independent contractor for state unemployment compensation purposes. If no state UC is paid, no credit or offset is available.

In most cases, interest as well as penalties will be added to any reclassification assessment. The typical penalty is ten percent of the tax.

Small businesses, whose payrolls are generally unable to financially support full-time employees with the level of expertise they receive from independent contractors, have been hit the hardest by the confusion according to Senator Kit Bond, (R-Mo.), chairman of the Senate Committee on Small Business.

"The IRS has resolved too many cases in favor of an employment relationship at the expense of bona fide independent contractor arrangements," Bond said in a recent statement.

To determine the proper classification of workers, the IRS has a list of questions that it asks the locksmith. Does the person work for other companies? How much independence does the person have to complete jobs? Is the worker paid on the basis of time worked?

The IRS says that these questions must be asked to help the agency ensure that workers who aren't seeking to be independent contractors within companies are classified properly, especially those who later file for unemployment compensation and learn that their employers did not withhold taxes.

The “Small Business Job Protection Act (passed in 1996), modified the “safe harbor” in Section 530 of the 1978 Revenue Act — a complex set of rules that had evolved primarily through court decisions over the past 10 years. Now, thanks to our lawmakers, there are better defined guidelines for when a locksmith can treat a worker as a non-employee for employment tax purposes.

Specifically, Section 530 allows employers to escape employment tax liability for workers if the following conditions are met:

- The locksmith/employer has always treated the employee as an independent contractor;
- The locksmith/employer filed all returns (including information returns) required for the worker for all periods after 1978 and the returns were all consistent with independent contractor status; and
- The employer had a reasonable basis for treating the worker as an independent contractor if such treatment was in reasonable reliance on any of the following: judicial precedent; a past IRS audit in which no assessment was made on account of improper treatment of the worker or a long-standing recognized practice of a significant segment of the industry in which the individual worked.

Long-Standing Industry Practice

In what was probably the most significant change to the rules in this area, the legislation helps employers that claim they are merely following long-standing industry practice in treating workers as independent contractors.

In determining whether an industry practice is long-standing, no fixed length of time will be required. In the past, the IRS dictated that a long-standing practice be standing for 10 years or in existence before 1979.

On a positive note, as mentioned, independent contractors will continue to offer benefits — and potential trouble — for everyone, employees and locksmiths/employers alike. However, the rules remain somewhat vague. So, to reap the benefits and avoid potential problems, professional guidance is recommended. **TNL**

TNL Subscriptions



This is THE source for automotive technology, safe opening techniques, electronic security and much, much more.

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#SUB - 1,2,3,4,5,6

BUSINESS BRIEFS

Mas-Hamilton Training

The Mas-Hamilton Group is introducing a series of training and certification classes for its new PowerLever™ Door Lock and its Auditcon™ Series safe locks. The following models will be covered: Auditcon™ Series, Models 100, 200, and 400: Classroom instruction will cover installation of the Low Profile, Round and Vertical lock housings, as well as provide hands-on experience in the programming and operation of the locks. PowerLever Door Lock Series, Models 1000, 2000, and 3000: Classroom instruction will cover and provide hands-on experience on the installation, lock operations, and programming of PowerLever.

For more information call: 800-950-4744 or circle #301.

Schwab's Technical Service

Bill Woodward, has announced his intent to retire at the end of 1998, after almost 25 years of service. While we will truly miss Bill's expertise and humor, Schwab is pleased to announce that Penny Golden has been promoted into technical services. Her more than 16 years of experience in our market will ensure that answers will still be provided with a smile whenever help is needed.

For more information call: (765) 447-9470 or fax: (765) 447-8278 or circle #302.

Maziuk Announces Electronic Security Products Division

Maziuk & Co., has opened an electronic security products division. Now, in

addition to door hardware, locksmith supplies and safes, dealers may purchase a variety of items including burglar and fire alarm products, closed circuit television, and access control equipment. With one phone call, dealers may speak to a sales staff with experience in both locksmithing and alarm system design and installation.

For more information contact Maziuk & Co., Inc., 1251 W. Genesee St., Syracuse, NY 13204, 800-777-5945 or circle #303.

USCAN Lock Distribution Company, Inc. Changes Name

USCAN Lock Distribution Company, Inc. has changed the name of the corporation to Security Distributors Inc.

Security Distributors Inc. represents major U.S. and Canadian manufactured products.

For more information call: (214) 879-1555 or circle #304.

Schlage Launches New Website



A new web site from Schlage Commercial Lock Division combines a wealth of product information, application solutions, lock history and breaking news. Located at www.schlage.com, the site focuses on Schlage Commercial Lock products

for the commercial specifier and end user.

MEDECO® Launches SiteLine™ sdc.

SiteLine™ sdc is a stand-alone, high security system that provides a cost effective and convenient means of upgrading to electronic access control (EAC) security. It is the only access control product on the market offering the dynamic duo of electronic and high security mechanical access control in one unique dual function, affordable credential (key). A true dual technology credential has electronics incorporated on or into a mechanically capable blank with cuts/bitting to be used with traditional mechanical cylinders.

Von Duprin Converts To Powder Coat Paint

Von Duprin is now using a powder coat paint process to finish products that formerly were finished with a wet paint process. The company says the powder coat paint provides a harder finish that is more resistant to impact, gives better adherence, and offers better corrosion resistance. The process also delivers improved color consistency.

For information call: 800-839-3157 or circle #305.

Access Hardware Stocking Kouba & Associates Local Door Alarms

Access Hardware is now stocking the Kouba & Associates local door alarms which consist of three different series; Security Door Control's new modular power supply, model 631RF; the Stanley MA900 series low energy operator; the Folger Adam 500 series

electric strike and Securitron's PM series plug in power module in 12 or 24 volts.

For a color brochure call: 800-348-2263 or fax: 800-435-8233 or circle #306.

G-U Hardware Revises Web Site

G-U Hardware, Inc. has revised its web site <http://www.g-u.com>. The site contains virtual movies of their factories, animated hardware functions, company history, descriptions, technical information, and pictures of quality hardware systems.

Security Lock Stocking Mas-Hamilton, Storm Axs and LCN



Security Lock is now stocking Mas-Hamilton's full line of locking devices; Storm Axs keypads which are vandal and weather resistant; and LCN's electrically powered 4622 series automatic door operator.

For more information call: 800-847-5625, Fax: 800-878-6400, E-Mail: SECLOCK@IX.NETCOM.COM; Web: <http://www.seclock.com> or circle #307. 

Quick Entry

UPDATE

by
Steve
Young



1999 CHEVROLET SILVERADO AND GMC SIERRA

The 1999 Chevrolet Silverado and GMC Sierra are totally new trucks from the ground up. There are literally hundreds of change (See photograph 1.)

One of the first things that I noticed was the way that the weather-stripping fits tight at the base of the window. Because of the tight fit, I was unable to use any of the "under the window" style tools to unlock this new truck. In addition, the very tight fit between the window and the weather-stripping makes it very difficult to see into the door cavity with an inspection light.

The door lock is mounted into an oversized modular outside door handle. The doors use plate-tumbler locks that are very similar to Chrysler door locks. These locks only have five tumblers, three on one side of the keyway and two on the other. This makes it possible to quickly pick these vehicles open.

To unlock the truck with the Tech-Train 1008 tool (see photograph 2) begin by wedging open the weather-stripping at the base of the window. Insert your wedge about three to four inches from the back of the window. Because of the tight fit of the window, you will only be able to open a small gap into the door cavity that is barely large enough to allow insertion of the tool.

Carefully insert the short end of the TT-1008 tool into the door and lower it until the top end of the tool is about five inches above the weather-stripping. Make sure that the shaft of the tool is vertical and no more than an inch forward from the back of the window glass. (See photograph 3.) Rotate the tool so that the end that is inside the door is pointed toward the inside of the truck. Pull up slowly until

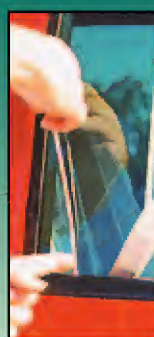
138 • The National Locksmith



1. 1999
Chevrolet Silverado.



2. Use short end of
the 1008 tool.



3. Insert tool
1" forward
of glass.



4. The linkage
(white arrow) the
wire bundle (black
arrows).



5. The tool
in position
to unlock
the truck.

you feel the tool hook onto the lower linkage rod. Twist the tool in order to bind the linkage, then lever the linkage rod forward in order to unlock the truck. If you fail to hook onto the linkage rod, bend the shaft of the tool slightly so that the tool will reach further toward the inside of the door and try again.

Photograph 4, shows the door with the door panel removed. The inside lock control linkage rod, indicated by the white arrow, is the lower of the two horizontal linkage rods that are attached to the latch. However, the two linkage rods cross over each other very close to the latch. The inside lock control linkage runs closer to the outside of the door than the handle linkage.

There are two 90° bends in the lock control linkage rod just forward of the latch that allow the tool to grip the

linkage rod very easily. The short end of the Tech-Train 1008 tool can be used to grasp the inside lock control linkage and move it forward to unlock the truck. (See photograph 5.)

Unfortunately, there is also a bundle of wires, shown by the black arrows in photograph 4, located very near the linkage rod. It would be very easy to get the end of the tool hooked onto these wires if you are not careful. Use caution as you probe for the linkage rod. **NL**

Quick Reference Guide

Vehicle: 1999 Chevrolet Silverado and
GMC Sierra

Direction Of Turn: Counter Clockwise

Tool: TT-1008 (short end)

Code Series: AA00 - 7T51

Key Blank: Strattec 598007 or 598009

Bitting: Ignition 1 - 9, Doors 6 - 10



THE CASH STATION

by Mark Gerhardt

Fujitsu ATM

Manufacturer
Fujitsu ATM

Model #
ACT6100

Safe Manufactured by
Armor Safe Corp., San Marcos,
CA.

Safe Model #
AR 6100 for Fujitsu ATM.



Lock

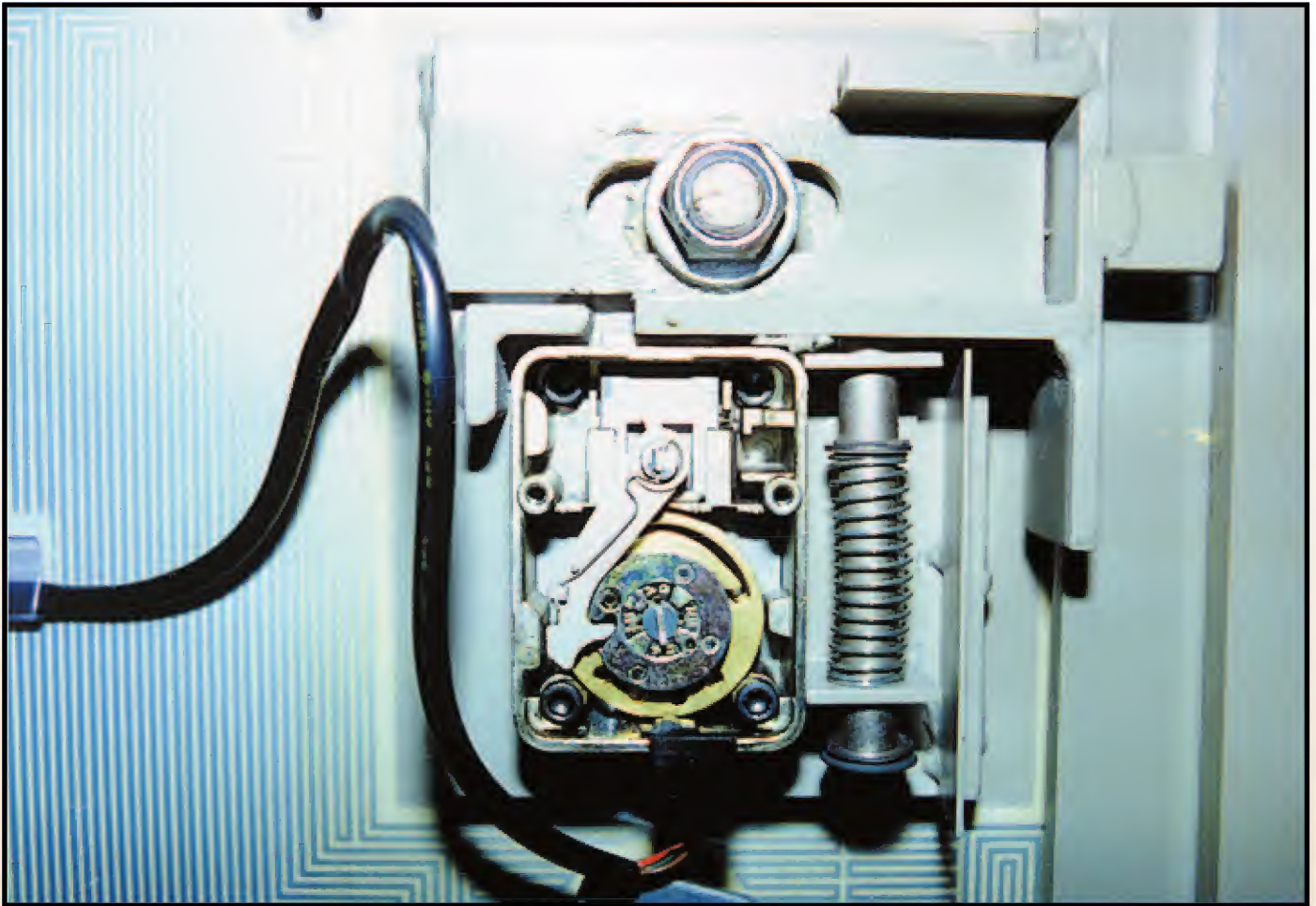
LaGard 1854RL holdup lock with key locking dial.

Lock Handing

Vertical Up (VU).

Lock Description

Three wheel, key-changeable lock with a silent alarm feature. There is a micro-switch at bottom of lock.



Fujitsu ATM

Lock Opening Procedures

4XL to first number (add ten numbers for silent alarm), 3XR to second number, 2XL to third number, 1XR until dial stops.

Lock Notes

There is an additional gate on the first wheel. When you add 10 numbers to combination, the lever will still drop-in. This activates the micro-switch and alarm when the bolt is retracted.

Drop-In Location

72

Lock Drill Point

7/8" from dial center at 72. Align wheel gates at lever fence.

Relock Trigger Type

Wire spring. Activates when combination lock cover is removed or punched.

Relock Trigger Drill Point

7/8" left of dial center. 1-5/8" up. Hook with a wire and pull towards front of safe.

Relock Device Type

Spring loaded plunger.

Relock Device Drill Point

1-3/4" left of dial center. 2-1/2" up. Pry relocker down.

Handle Location

3-1/2" down from dial center.

Handle Rotation

Counter-Clockwise to open.

THRU THE KEYHOLE

A Peek at Movers & Shakers in the Industry

ATTENTION MANUFACTURERS AND DISTRIBUTORS:

Would you like your company and products to be profiled in *Thru The Keyhole*? Please call Editor, Greg Mango, at (630) 837-2044.

Ballistol-lube

Imagine having a product to sell that not only has so many uses that everyone is a potential user, but provides a healthy profit margin and a high demand, too! That product is here now.

Ballistol-lube was originally developed for the German Army in 1905 and only available to them until the end of World War II. Although Europe used it in the private sector for generations, Ballistol was not formally introduced in the United States until early in this decade. Ballistol is used for all types of hardware and other precision equipment, firearms, leather, and wood protection, and even electrical contacts, just to name a few.

A short review of Ballistol's properties:

- It's biodegradable
- It's also non-toxic
- It kills germs
- Is odorless after application
- It never becomes gummy
- Does not conduct electricity
- It mixes with water

Because of the amazing properties and uses for Ballistol-lube, the consumer and industrial demand for such a product is steadily increasing.

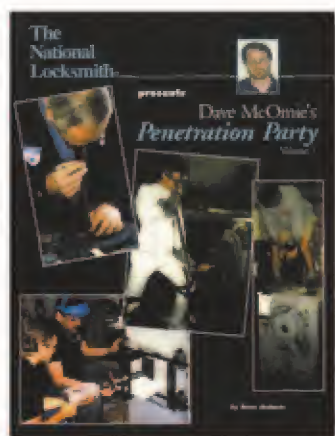
You as a trusted locksmith in your area, have a tremendous opportunity to profit from the sale of Ballistol. It has been discovered that a product with a higher than average unit price for lubricants does not sell well on a mass merchants shelf among the many competing brands. What is also

generating profits among locksmiths carrying Ballistol is the 'Recommendation Factor', where your clients will make purchases based on your trusted recommendations.

As an example, Fred from the local school district bemoans the fact that he cannot find anything that will lubricate his exterior building locks and last more than a month or two. You recommend (and demonstrate) a dose of Ballistol on the cylinder in question and explain the environmental benefits of a planet-friendly lubricant. Your extra little time:

1. Provides a solution to his immediate problem
2. Educates him to consider and use Ballistol for other applications
3. Improves your reputation with

Penetration Party



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#PP - 1

The National Locksmith Guide to:



Easy to learn principles will have you reading locks fast.

Reading is by far the easiest and fastest method of making keys for foreign automotive wafer locks.

Reading positively avoids any chance of damage to the lock cylinder or wafer that might be caused by improvising.

Handy locksmiths notebook, keeps important facts handy.

by Robert Gene Stevking

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#WLR - 1

Wafer Lock Reading

Easy to learn.
No Codes needed.




The Ballistol-lube product line.

him and the school for extending the life of their precious hardware and saving them money in the process, and

4. Just increased your bottom line now and in the future with a full profit margin; no discounting necessary!

Since you have no competition in selling Ballistol, both in pricing and in comparable products, you don't have to play the discount game that seems to be creeping up more and more with many products we all sell.

With a profitable and safe product offering hundreds of uses, millions more potential consumers in the US, growing awareness and demand, and a solid opportunity to give your professional reputation a further boost, you can see why Ballistol-lube is so attractive in monetary and reputation profitability. It is certainly worth your time to evaluate its claims for yourself.

For more information contact: AmoraTech, Inc. at: (717) 582-3819, Fax: (717) 582-7549, E-mail: les@amoratech.com, <http://www.amoratech.com>, or circle 294 on Rapid Reply. 

The Ultimate Technitips Collection

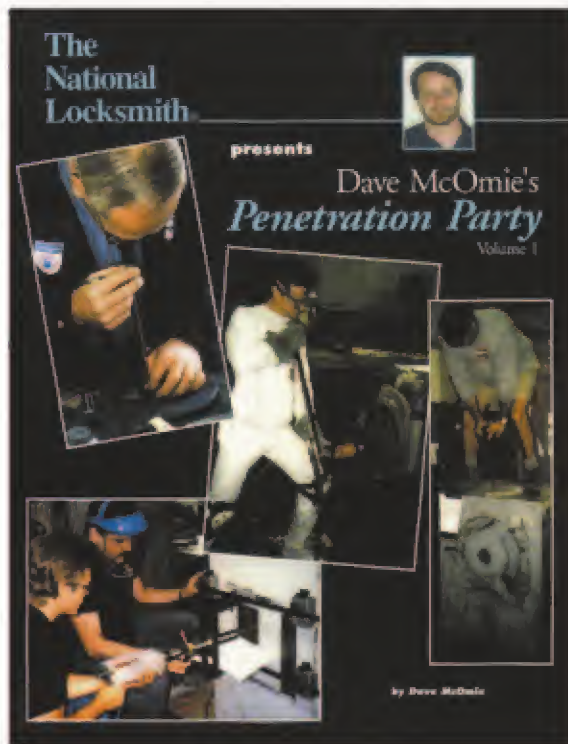


Here's one of the most useful books ever available to the locksmith!

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#TIPS - 2

Penetration Party



Uncensored! • The Safes! • The Tools!
• The Action! • The Perfect Openings!
• The Bloopers and Blunders!
• The Slick Tricks!

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#PP - 1

KEY CODES

Iveco MD3001-MD3890



Manufacturer: Iveco (Italy)
Code Series: MD3001-MD3890

Key Blanks

Curtis: V30

Ilco: 73VB

Ilco EZ: 73VB

Silca: V09

Number of Cuts: 7

M.A.C.S.: 3

Key Gauged: Shoulder

Center of First Cut: .100

Cut to Cut Spacings: .120

Cut Depth Increments: .025

Spacings:

- 1 - .100
- 2 - .220
- 3 - .334
- 4 - .437
- 5 - .574
- 6 - .732
- 7 - .870

Depths:

- 1 = .299
- 2 = .273
- 3 = .248
- 4 = .226

HPC 1200CMB

Code Card: XF4

Cutter: CW1011

Jaw: A

Gauge From: Shoulder

HPC Punch

PCH Card: PF4

Punch: PCH1011

Jaw: A

HPC CodeMax

DSD #: 105

Framon

Cuts Start at: .100

Spacing: VB Spacing block.

Block #: 2

Depth Increments: .024

Key Clamping Info:

Curtis

Cam-Set: VW-3

Carriage: VW-3B

MD3001	3111241	MD3031	2123241	MD3061	3134241	MD3091	3322411	MD3121	2311412	MD3151	1122432
MD3002	2134242	MD3032	1123242	MD3062	2111241	MD3092	2323412	MD3122	1334412	MD3152	3122431
MD3003	1112241	MD3033	3123241	MD3063	3134242	MD3093	1323411	MD3123	3334411	MD3153	2123432
MD3004	3111242	MD3034	2122241	MD3064	1311412	MD3094	3322412	MD3124	2311411	MD3154	1123431
MD3005	2134241	MD3035	1124241	MD3065	3311411	MD3095	2323411	MD3125	3334412	MD3155	3122432
MD3006	1112242	MD3036	3123242	MD3066	2334412	MD3096	1323412	MD3126	3111431	MD3156	2123431
MD3007	3112241	MD3037	2121242	MD3067	1312411	MD3097	3323411	MD3127	2134432	MD3157	1123432
MD3008	2133242	MD3038	1124242	MD3068	3311412	MD3098	2322411	MD3128	1112431	MD3158	3123431
MD3009	1113241	MD3039	3124241	MD3069	2334411	MD3099	1324411	MD3129	3111432	MD3159	2122431
MD3010	3112242	MD3040	2121241	MD3070	1312412	MD3100	3323412	MD3130	2134431	MD3160	1124431
MD3011	2133241	MD3041	1131241	MD3071	3312411	MD3101	2321412	MD3131	1112432	MD3161	3123432
MD3012	1113242	MD3042	3124242	MD3072	2333412	MD3102	1324412	MD3132	3112431	MD3162	2121432
MD3013	3113241	MD3043	1131242	MD3073	1313411	MD3103	3324411	MD3133	2133432	MD3163	1124432
MD3014	2132242	MD3044	3131241	MD3074	3312412	MD3104	2321411	MD3134	1113431	MD3164	3124431
MD3015	3113242	MD3045	1132241	MD3075	2333411	MD3105	1331411	MD3135	3112432	MD3165	2121431
MD3016	2132241	MD3046	3131242	MD3076	1313412	MD3106	3324412	MD3136	2133431	MD3166	1131431
MD3017	2131242	MD3047	2113242	MD3077	3313411	MD3107	1331412	MD3137	1113432	MD3167	3124432
MD3018	1121241	MD3048	1132242	MD3078	2332412	MD3108	3331411	MD3138	3113431	MD3168	1131432
MD3019	2131241	MD3049	3132241	MD3079	3313412	MD3109	1332411	MD3139	2132432	MD3169	3131431
MD3020	1111142	MD3050	2113241	MD3080	2332411	MD3110	3331412	MD3140	3113432	MD3170	1132431
MD3021	3121241	MD3051	1133241	MD3081	2331412	MD3111	2313412	MD3141	2132431	MD3171	3131432
MD3022	2124242	MD3052	3132242	MD3082	1321411	MD3112	1332412	MD3142	2131432	MD3172	2113432
MD3023	1122241	MD3053	2112242	MD3083	2331411	MD3113	3332411	MD3143	1121431	MD3173	1132432
MD3024	3121242	MD3054	1133242	MD3084	1321412	MD3114	2313411	MD3144	2131431	MD3174	3132431
MD3025	2124241	MD3055	3133241	MD3085	3321411	MD3115	1333411	MD3145	1121432	MD3175	2113431
MD3026	1122242	MD3056	2112241	MD3086	2324412	MD3116	3332412	MD3146	3121431	MD3176	1133431
MD3027	3122241	MD3057	1134241	MD3087	1322411	MD3117	2312412	MD3147	2124432	MD3177	3132432
MD3028	2123242	MD3058	3133242	MD3088	3321412	MD3118	1333412	MD3148	1122431	MD3178	2112432
MD3029	1123241	MD3059	2111242	MD3089	2324411	MD3119	2312411	MD3149	3121432	MD3179	1133432
MD3030	3122242	MD3060	1134242	MD3090	1322412	MD3120	1334411	MD3150	2124431	MD3180	3133431

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Iveco MD3001-MD3890

MD3181	2112431	MD3207	3423132	MD3233	2132342	MD3259	2121341	MD3315	3111412	MD3371	1311142
MD3182	1134431	MD3208	2421132	MD3234	3113342	MD3260	1131341	MD3316	2134411	MD3372	3311141
MD3183	3133432	MD3209	3424131	MD3235	2132341	MD3261	3124342	MD3317	1112412	MD3373	2334142
MD3184	2111432	MD3210	2421131	MD3236	2131342	MD3262	1131342	MD3318	3112411	MD3374	1312141
MD3185	1134432	MD3211	3424132	MD3237	1121341	MD3263	3131341	MD3319	2133412	MD3375	3311142
MD3186	3134431	MD3212	3431131	MD3238	2131341	MD3264	1132341	MD3320	3112412	MD3376	2334141
MD3187	2111431	MD3213	3431132	MD3239	1121342	MD3265	3131342	MD3321	2133411	MD3377	1312142
MD3188	3134432	MD3214	3432131	MD3240	3121341	MD3266	2113342	MD3322	1113412	MD3378	3312141
MD3189	2434132	MD3215	3432132	MD3241	2124342	MD3267	1132342	MD3323	3113411	MD3379	2333142
MD3190	2434131	MD3216	3433131	MD3242	1122341	MD3268	3132341	MD3324	2132412	MD3380	1313141
MD3191	2433132	MD3217	3433132	MD3243	3121342	MD3269	2113341	MD3325	3113412	MD3381	3312141
MD3192	2433131	MD3218	3434131	MD3244	2124341	MD3270	1133341	MD3326	2132411	MD3382	2333141
MD3193	2432132	MD3219	3434132	MD3245	1122342	MD3271	3132342	MD3327	2131412	MD3383	1313142
MD3194	2432131	MD3220	3111341	MD3246	3122341	MD3272	2112342	MD3328	2131411	MD3384	3313141
MD3195	2431132	MD3221	2134342	MD3247	2123342	MD3273	1133342	MD3329	1121412	MD3385	2332142
MD3196	2431131	MD3222	1112341	MD3248	1123341	MD3274	3133341	MD3330	3121411	MD3386	3313142
MD3197	3421131	MD3223	3111342	MD3249	3122342	MD3275	2112341	MD3331	2124412	MD3387	2332141
MD3198	2424132	MD3224	2134341	MD3250	2123341	MD3276	1134341	MD3332	1122411	MD3388	2331142
MD3199	3421132	MD3225	1112342	MD3251	1123342	MD3277	3133342	MD3333	3121412	MD3389	1321141
MD3200	2424131	MD3226	3112341	MD3252	3123341	MD3278	2111342	MD3334	2124411	MD3390	2331141
MD3201	3422131	MD3227	2133342	MD3253	2122341	MD3279	1134342	MD3335	1122412	MD3391	1321142
MD3202	2423132	MD3228	1113341	MD3254	1124341	MD3280	3134341	MD3336	3122411	MD3392	3321141
MD3203	3422132	MD3229	3112342	MD3255	3123342	MD3281	2111341	MD3337	2123412	MD3393	2324142
MD3204	2423131	MD3230	2133341	MD3256	2121342	MD3282	3134342	MD3338	1123411	MD3394	1322141
MD3205	3423131	MD3231	1113342	MD3257	1124342	MD3283	2434312	MD3339	3122412	MD3395	3321142
MD3206	2422131	MD3232	3113341	MD3258	3124341	MD3284	2434311	MD3340	2123411	MD3396	2324141

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MD3285	2433312	MD3341	1123412	MD3397	1322142
MD3286	2433311	MD3342	3123411	MD3398	3322141
MD3287	2432312	MD3343	2122411	MD3399	2323142
MD3288	2432311	MD3344	1124411	MD3400	1323141
MD3289	2431312	MD3345	3123412	MD3401	3322142
MD3290	2431311	MD3346	2121412	MD3402	2323141
MD3291	3421311	MD3347	1124412	MD3403	1323142
MD3292	2424312	MD3348	3124411	MD3404	3323141
MD3293	3421312	MD3349	2121411	MD3405	2322141
MD3294	2424311	MD3350	3124412	MD3406	1324141
MD3295	3422311	MD3351	1131412	MD3407	3323142
MD3296	2423312	MD3352	3131411	MD3408	2321142
MD3297	3422312	MD3353	1132411	MD3409	1324142
MD3298	2423311	MD3354	3131412	MD3410	3324141
MD3299	3423311	MD3355	2113412	MD3411	2321141
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MD3301	3423312	MD3357	3132411	MD3413	3324142
MD3302	2421312	MD3358	2113411	MD3414	1331142
MD3303	3424311	MD3359	1133411	MD3415	3331141
MD3304	2421311	MD3360	3132412	MD3416	1332141
MD3305	3424312	MD3361	2112412	MD3417	3331142
MD3306	3431311	MD3362	1133412	MD3418	2313142
MD3307	3431312	MD3363	3133411	MD3419	1332142
MD3308	3432311	MD3364	2112411	MD3420	3332141
MD3309	3432312	MD3365	1134411	MD3421	2313141
MD3310	3433311	MD3366	3133412	MD3422	1333141
MD3311	3433312	MD3367	2111412	MD3423	3332142
MD3312	3434311	MD3368	1134412	MD3424	2312142
MD3313	3434312	MD3369	3134411	MD3425	1333142
MD3314	2134412	MD3370	3134412	MD3426	2312141

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MD3427	1334141	MD3438	2432211	MD3449	3423211	MD3460	3433211	MD3471	3212411	MD3527	2434142
MD3428	2311142	MD3439	2431212	MD3450	2422211	MD3461	3433212	MD3472	2233412	MD3528	2434141
MD3429	1334142	MD3440	2431211	MD3451	3423212	MD3462	3434211	MD3473	1213411	MD3529	2433142
MD3430	3334141	MD3441	3421211	MD3452	2421212	MD3463	3434212	MD3474	3212412	MD3530	2433141
MD3431	2311141	MD3442	2424212	MD3453	3424211	MD3464	1211412	MD3475	2233411	MD3531	2432142
MD3432	3334142	MD3443	3421212	MD3454	2421211	MD3465	3211411	MD3476	1213412	MD3532	2432141
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MD3434	2434211	MD3445	3422211	MD3456	3431211	MD3467	1212411	MD3478	2232412	MD3534	2431141
MD3435	2433212	MD3446	2423212	MD3457	3431212	MD3468	3211412	MD3479	3213412	MD3535	3421141
MD3436	2433211	MD3447	3422212	MD3458	3432211	MD3469	2234411	MD3480	2232411	MD3536	2424142
MD3437	2432212	MD3448	2423211	MD3459	3432212	MD3470	1212412	MD3481	2231412	MD3537	3421142

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MD3482	1221411	MD3527	2434142
MD3483	2231411	MD3528	2434141
MD3484	1221412	MD3529	2433142
MD3485	3221411	MD3530	2433141
MD3486	2224412	MD3531	2432142
MD3487	1222411	MD3532	2432141
MD3488	3221412	MD3533	2431142
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MD3495	2223411	MD3540	2423142
MD3496	1223412	MD3541	3422142
MD3497	3223411	MD3542	2423141
MD3498	1224411	MD3543	3423141
MD3499	3223412	MD3544	2422141
MD3500	2221412	MD3545	3423142
MD3501	1224412	MD3546	2421142
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MD3504	1231411	MD3549	3424142
MD3505	3224412	MD3550	3431141
MD3506	1231412	MD3551	3431142
MD3507	3231411	MD3552	3432141
MD3508	1232411	MD3553	3432142
MD3509	3231412	MD3554	3433141
MD3510	2213412	MD3555	3433142
MD3511	1232412	MD3556	3434141
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MD3513	2213411	MD3558	3111421
MD3514	1233411	MD3559	2134422
MD3515	3232412	MD3560	1112421
MD3516	2212412	MD3561	3111422
MD3517	1233412	MD3562	2134421
MD3518	3233411	MD3563	1112422
MD3519	2212411	MD3564	3112421
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		MD3572	3113422
		MD3573	2132421
		MD3574	2131422
		MD3575	1121421
		MD3576	2131421
		MD3577	1121422
		MD3578	3121421
		MD3579	2124422
		MD3580	1122421
		MD3581	3121422
		MD3582	2124421

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MD3583	1122422	MD3639	3423122	MD3695	3231141	MD3706	3233141	MD3717	1112142	MD3728	2131141
MD3584	3122421	MD3640	2421122	MD3696	1232141	MD3707	2212141	MD3718	3112141	MD3729	1121142
MD3585	2123422	MD3641	3424121	MD3697	3231142	MD3708	1234141	MD3719	2133142	MD3730	3121141
MD3586	1123421	MD3642	2421121	MD3698	2213142	MD3709	3233142	MD3720	3112142	MD3731	2124142
MD3587	3122422	MD3643	3424122	MD3699	1232142	MD3710	2211142	MD3721	2133141	MD3732	1122141
MD3588	2123421	MD3644	3431121	MD3700	3232141	MD3711	1234142	MD3722	1113142	MD3733	3121142
MD3589	1123422	MD3645	3431122	MD3701	2213141	MD3712	3234141	MD3723	3113141	MD3734	2124141
MD3590	3123421	MD3646	3432121	MD3702	1233141	MD3713	2211141	MD3724	2132142	MD3735	1122142
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MD3593	3123422	MD3649	3433122	MD3705	1233142	MD3716	2134141	MD3727	2131142	MD3738	1123141
MD3594	2121422	MD3650	3434121								
MD3595	1124422	MD3651	3434122								
MD3596	3124421	MD3652	1211142								
MD3597	2121421	MD3653	3211141								
MD3598	1131421	MD3654	2234142								
MD3599	3124422	MD3655	1212141								
MD3600	1131422	MD3656	3211142								
MD3601	3131421	MD3657	2234141								
MD3602	1132421	MD3658	1212142								
MD3603	3131422	MD3659	3212141								
MD3604	2113422	MD3660	2233142								
MD3605	1132422	MD3661	1213141								
MD3606	3132421	MD3662	3212142								
MD3607	2113421	MD3663	2233141								
MD3608	1133421	MD3664	1213142								
MD3609	3132422	MD3665	3213141								
MD3610	2112422	MD3666	2232142								
MD3611	1133422	MD3667	3213142								
MD3612	3133421	MD3668	2232141								
MD3613	2112421	MD3669	2231142								
MD3614	1134421	MD3670	1221141								
MD3615	3133422	MD3671	2231141								
MD3616	2111422	MD3672	1221142								
MD3617	1134422	MD3673	3221141								
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MD3620	3134422	MD3676	3221142								
MD3621	2434122	MD3677	2224141								
MD3622	2434121	MD3678	1222142								
MD3623	2433122	MD3679	3222141								
MD3624	2433121	MD3680	2223142								
MD3625	2432122	MD3681	1223141								
MD3626	2432121	MD3682	3222142								
MD3627	2431122	MD3683	2223141								
MD3628	2431121	MD3684	1223142								
MD3629	3421121	MD3685	3223141								
MD3630	2424122	MD3686	1224141								
MD3631	3421122	MD3687	3223142								
MD3632	2424121	MD3688	2221142								
MD3633	3422121	MD3689	1224142								
MD3634	2423122	MD3690	3224141								
MD3635	3422122	MD3691	2221141								
MD3636	2423121	MD3692	1231141								
MD3637	3423121	MD3693	3224142								
MD3638	2422121	MD3694	1231142								

Modern Safe Opening



This book is a step-by-step How-To course in safe penetration. Opening safes is one of the most profitable aspects of the locksmithing business.

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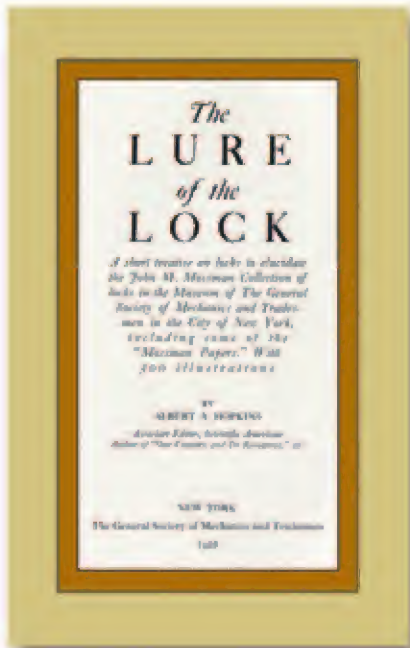
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MD3739	3122142	MD3765	1134141	MD3791	2124442	MD3817	1132442	MD3843	3422111	MD3869	2424412
MD3740	2123141	MD3766	3133142	MD3792	1122441	MD3818	3132441	MD3844	2423112	MD3870	3421412
MD3741	1123142	MD3767	1134142	MD3793	3121442	MD3819	2113441	MD3845	3422112	MD3871	2424411
MD3742	3123141	MD3768	3134141	MD3794	2124441	MD3820	1133441	MD3846	2423111	MD3872	3422411
MD3743	2122141	MD3769	3134142	MD3795	1122442	MD3821	3132442	MD3847	3423111	MD3873	2423411
MD3744	1124141	MD3770	3111441	MD3796	3122441	MD3822	2112441	MD3848	2422111	MD3874	3422411
MD3745	3123142	MD3771	2134442	MD3797	2123442	MD3823	1133442	MD3849	3423112	MD3875	2423411
MD3746	2121142	MD3772	1112441	MD3798	1123441	MD3824	3133441	MD3850	2421112	MD3876	2423411
MD3747	1124142	MD3773	3111442	MD3799	3122442	MD3825	2112441	MD3851	3424111	MD3877	2422411
MD3748	3124141	MD3774	2134441	MD3800	2123441	MD3826	1134441	MD3852	3424112	MD3878	2423412
MD3749	2121141	MD3775	1112442	MD3801	1123442	MD3827	3133442	MD3853	3431112	MD3879	2421411
MD3750	3124142	MD3776	3112441	MD3802	3123441	MD3828	2111442	MD3854	3432111	MD3880	2424411
MD3751	1131142	MD3777	2133442	MD3803	2122441	MD3829	1134442	MD3855	3432112	MD3881	2421311
MD3752	3131141	MD3778	1113441	MD3804	1124441	MD3830	3134441	MD3856	3433111	MD3882	3424411
MD3753	1132141	MD3779	3112442	MD3805	3123442	MD3831	2111441	MD3857	3433112	MD3883	3431311
MD3754	3131142	MD3780	2133441	MD3806	2121442	MD3832	3134442	MD3858	3434111	MD3884	3431411
MD3755	2113142	MD3781	1113442	MD3807	1124442	MD3833	2434112	MD3859	3434112	MD3885	3432311
MD3756	1132142	MD3782	3113441	MD3808	3124441	MD3834	2434111	MD3860	2434412	MD3886	3432411
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MD3761	2112142	MD3787	1121441	MD3813	3131441	MD3839	2431112	MD3865	2432411		
MD3762	1133142	MD3788	2131441	MD3814	1132441	MD3840	2424112	MD3866	2431312		
MD3763	3133141	MD3789	1121442	MD3815	3131442	MD3841	3421112	MD3867	2431411		
MD3764	2112141	MD3790	3121441	MD3816	2113442	MD3842	2424111	MD3868	3421411		

TNL



The Lure of the Lock

This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.

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AUTO TASERTM

— by Safe & Secure

The AUTO TASER is the first automotive steering wheel lock that does more than just defend against physical attack. This anti-theft device is designed to fight back. While standard alarms may emit loud noises, and standard steering wheel locks defend against physical attack, the AUTO TASER does all the above and then some.

PRODUCT: The AUTO TASER not only utilizes the intimidating power of electricity to ward off a car thief, but is 4 security systems in 1. It is a highly resistant steering wheel lock device, a pulsating siren, an electronic stereo shield and a TASER.

OPERATION: The AUTO TASER is locked to the steering wheel of the vehicle and then activated, or deactivated, with a remote control. When the ultra sensitive motion sensor detects an intruder, it sounds a 110-130 Db screeching alarm. After the warning, AUTO TASER activities a field of electrons which completely surround the device. When the thief's hand enters the field, the device automatically reacts by zapping the criminal with a non-lethal-but an unforgettable-5900 milliwatt electronic pulse.

The AUTO TASE can also be used to protect in-dash car stereos. The TASER is long enough to be positioned in front of the in-dash car stereo, surrounding it with a

protective field of electricity. This would give any thief something to think about.

CODE -HOPPING SECURITY: The AUTO TASER remote control system uses a sophisticated encryption technology to prevent code interception by would-be thieves. The AUTO TASER remote changes to a different code every time it transmits a signal. The microprocessor in the remote and in the AUTO TASER uses a special algorithm to keep synchronized. This makes capturing a radio signal useless.

CONSTRUCTION: Made of Rockwell 64 hardened steel, AUTO TASER cannot be cut with saws or bolt cutters. Its polycarbonate coating resists successful spraying with such substances as freon and liquid nitrogen. The electronics are completely self contained, with no wires to cut and no connection with the electrical system in the car.

SAFE & SECURE: When the AUTO TASER is activated, there is visual electric arcing. The AUTO TASER produces visible arc's clearly showing the unit is live. If contact is made with the AUTO TASER when activated, a five second alarm is sounded before the TASER is in full assault mode.


The AUTO TASER can only be activated when locked on a steering wheel. It cannot be used as a weapon or stun gun. It is also clearly marked

with warnings that the system is electrified and cannot be touched.

PRICE: The MFSR is \$249.95, and a three-year extended warranty is available for only \$39.95. AUTO TASER is available directly from Safe & Secure.

CONCLUSION: The AUTO TASER is a very impressive anti-theft deterrent that is nicely designed and easy to use. It is a bit expensive, however, never before has a steering wheel locking device incorporated more features (steering wheel lock; alarm siren and Taser) in such a compact package.

The only suggestion I would make is, be sure to purchase more than one remote control. Only one comes with the unit and is required to activate and deactivate the AUTO TASER. If it is locked on a steering wheel and the remote is lost, it's going to be fun trying to remove this device.

For more information call:
888-788-8338. Fax: 310-202-6866.
E-mail: Mdsafeser@aol.com 

IN SUMMARY:

DESCRIPTION: The AUTO TASER steering wheel lock utilizes the intimidating power of electricity.

PRICE: \$249.95

TEST DRIVE RESULTS:

Never before has a steering wheel locking device incorporated more features.